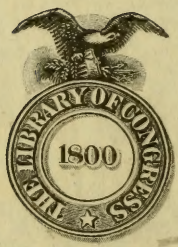
HOME AND HEALTH



Class TX145
Book .H78
Copyright No.

COPYRIGHT DEPOSIT.

HOME AND HEALTH



Country Homes



Home and ...Health...

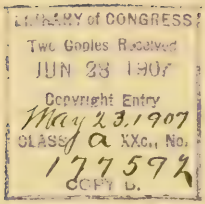
A HOUSEHOLD MANUAL

CONTAINING TWO THOUSAND RECIPES AND HELPFUL SUGGESTIONS ON THE BUILDING AND CARE OF THE HOME IN HARMONY WITH SANITARY LAWS; THE PRESERVATION OF HEALTH BY CLEAN, CONSISTENT LIVING; AND THE HOME TREATMENT OF THE MORE SIMPLE AILMENTS AND DISEASES, BY THE USE OF NATURAL, RATIONAL REMEDIES INSTEAD OF DRUGS

PREPARED AND EDITED BY A COMPETENT COMMITTEE OF HOME-MAKERS AND PHYSICIANS

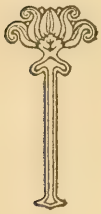
Pacific Press Publishing Co.
Mountain View, California
Portland, Ore. Kansas City, Mo.
1907

TX 165
.H79



Entered according to Act of Congress, 1907, by
PACIFIC PRESS PUBLISHING COMPANY
In the office of the Librarian of Congress, Washington, D. C.
Also entered at Stationers' Hall, London, England.
All rights reserved.

TO THE HOME
WITH A
PRAYER FOR
ITS STRENGTH
AND PURITY
THIS VOLUME
IS RESPECT-
FULLY
INSCRIBED



THE first wealth is health; sickness is poor-spirited; it must husband its resources to live. But health answers its own ends and has to spare; runs over and inundates the creeks and meadow-lands of other men's necessity.

—Emerson



Preface

PREVENTION of disease is good economy, both of strength and money. Broken health, though mended, usually carries a scar. We are not quite what we were, after a serious illness. From overwork or unwise living the nerve force breaks down and vital organs are weakened; then follows enforced rest, heavy expense, and a life-long struggle with a broken constitution.

It is reported that a man of wealth has offered a million dollars for a new stomach. It can not be supplied, even at that price. If it were possible, it would be poor economy for the man to spoil a good stomach by bad living, and then pay such a price for a new one.

A lecturer, pale and thin, was urging upon a convention the importance of certain dietetic reforms. A doubting listener, who thought the speaker a poor representative of his theory, asked him how the reform he was advocating agreed with his constitution. "My constitution!" replied the witty speaker, "I haven't any constitution. I have been living on my by-laws for thirty years."

The great majority of physicians and graduated nurses are working night and day framing by-laws for broken constitutions, when a portion of their time, at least, might better be spent in teaching the people how to escape disease by caring for their bodies and their homes in harmony with the laws of health. We are told that certain heathen races pay their physicians by the month for keeping them well. When sickness comes, the pay stops. We smile at the custom, but the wisdom of it we can not deny.

During recent years there has been a great awakening to the importance of healthful living, as is shown by numerous journals devoted wholly to the subject, the health departments in popular magazines, popular lectures at Chautauqua gatherings, health schools, and the extensive

manufacture and sale of health foods, health clothing, etc. All these agencies are doing their part to improve our homes and manner of living.

But all these good helps are widely scattered, and are often beyond our reach when most needed. Emergencies arise almost daily in the home which demand prompt, intelligent action. Bruises and burns and cuts must be dressed; the children should be trained and educated—a burden of love which rests with perplexing weight upon many parents in these days of vice. The plumbing is out of order, and the plumber's bills are very high; it is house-cleaning time, and the work looms up like a mountain from lack of systematic methods; it is washing day, and how to "cleanse" the hard water and remove stains is the question; there is a room and bedding and clothing to fumigate, or a dirty sink to disinfect; and so on through all the housekeeper's routine. She needs a reference book—a real home companion—to tell her what to do and how to do it.

The object of this book, therefore, is twofold; first, the prevention of disease by teaching the principles of life and health; and second, the classification of such recipes and items of information as are most needed in the home, in convenient form for reference.

No attempt has been made to present technical or professional information. That is not its mission. It has been prepared for practical, daily use by the common people, and is written in the plain, simple language of the home. Its principles and suggestions, however, are intended to be in harmony with that splendid scientific movement, which is gaining ground so rapidly in all the world, in behalf of temperance in all things, plain, healthful living, sanitary homes, and nature's remedies for the treatment of disease.

The Publishers

Contents

INTRODUCTION

SECTION I.—THE HOME

The Location 27

The Building Site 31

Suggestions on Building 33

Sewerage 49

Healthful Surroundings 57

Water Supply 65

Furnishing the Home 75

SECTION II.—GENERAL HOUSEKEEPING

Cleanliness and Order 85

Sweeping and Dusting 93

Care of Floors 99

Living-Rooms 103

Sleeping-Rooms 109

Bath-Room and Toilet 113

Kitchen and Pantry 117

The Cellar 135

Care of Plumbing 137

Laundering 141

Removing Stains from Wash Goods 161

Clothes Cleaning 167

House Cleaning 175

Repairing Furniture 185
Fruit Canning 189
Pests 197
Miscellaneous Recipes 217
Don'ts for Housekeepers 225

SECTION III.—DIET

Good Food 229
Vegetarianism 259
Cooking 271
The Art of Dining 287
Condiments 299
Stimulants and Narcotics 303
Refreshing Drinks 327

SECTION IV.—CARE OF THE BODY

Ventilation 333
Exercise 343
Rest 363
Bathing 375
Sunshine 381
Making the Toilet 383
Healthful Dress 397
Hygiene of the Voice and Teeth 409
Hygiene of the Eyes and Ears 415
Social Purity 419

SECTION V.—THE CARE AND TRAINING OF CHILDREN

A Sacred Responsibility 433
The Baby 437
The Little Girl 445
The Little Boy 449
The Child's Clothing 453
Exercise and Recreation 457
Children's Work 461
Discipline 467
Education 477
True Courtesy 481
At Family Worship 485
General Suggestions 491
Don'ts for Parents 497

SECTION VI.—THE HOME TREATMENT OF DISEASE

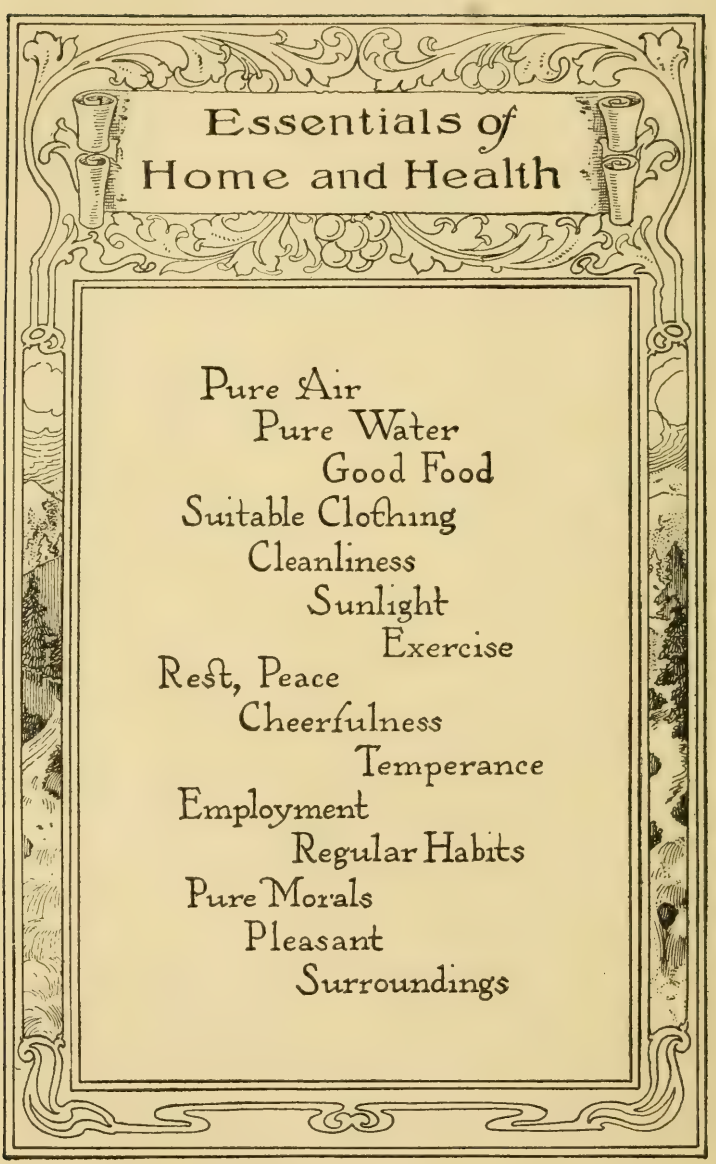
Rational Remedies 501
Drugs 515
Care of the Sick 521
Disinfectants 527
Emergency Treatments 535
Treatment of Minor Diseases 547
General Index 565
Directory 583

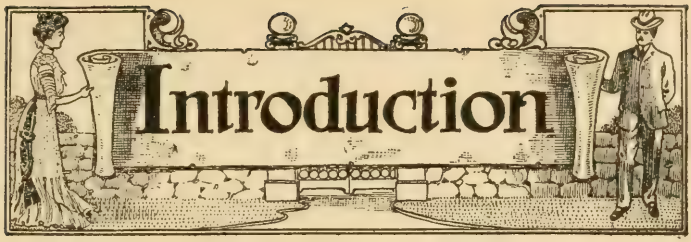
IS not this the fast that I have chosen? to loose the bands of wickedness, to undo the heavy burdens, and to let the oppressed go free, and that ye break every yoke? ¶ Is it not to deal thy bread to the hungry, and that thou bring the poor that are cast out to thy house? when thou seest the naked, that thou cover him; and that thou hide not thyself from thine own flesh? ¶ Then shall thy light break forth as the morning, and thine health shall spring forth speedily.

Isaiah 58 : 6-8.



INTRODUCTION


Essentials of
Home and Health
Pure Air
Pure Water
Good Food
Suitable Clothing
Cleanliness
Sunlight
Exercise
Rest, Peace
Cheerfulness
Temperance
Employment
Regular Habits
Pure Morals
Pleasant
Surroundings



HOME

Better than gold is a peaceful home,
Where all the fireside charities come;
The shrine of love and the heaven of life,
Hallow'd by mother, or sister, or wife.
However humble the home may be,
Or tried with sorrows by Heaven's decree,
The blessings that never were bought or sold,
And center there, are better than gold.

—*Anon.*

Home is the one place in all this world where hearts are sure of each other. It is the place of confidence. It is the place where we tear off the mask of guarded and suspicious coldness which the world forces us to wear in self-defense, and where we pour out the unreserved communications of full and confident hearts. It is the spot where expressions of tenderness gush out without any sensation of awkwardness and without any dread of ridicule. —*F. W. Robertson*

FIRST THE HOME, THEN THE HOUSE

Home-making is a greater art than housekeeping. A well-kept house is an important essential in making a home, but it should not be made of first importance, nor be allowed to take the place of that greater art, home-making, which should be the highest ambition of every housewife.

Unfortunately, every house is not a home. Some of the most orderly, well-kept, richly furnished houses are utterly devoid of the sense of freedom and comfort, of joy and rest, that appeal so strongly to most of us, and

Home—the nursery of the Infinite.
—William Henry Channing

without which the best-appointed house is but an empty shell. There is a place for everything and everything is always in that place; but the freedom and all the sweetest joys of home are sacrificed without compunction to the orderly rules of the house. The slightest innovation, if it interferes with the system, is frowned upon, and suffered only under protest.

To make a real home for those we love; to add to their happiness, even at the sacrifice of personal fads and fancies; to keep the home the one spot to be desired by husband and children, both now and in the years to come,—these afford the greatest incentive and keenest enjoyment in housekeeping, and make all branches of housework equally interesting.

O home—restful home! theme of praise and of song!
Where the heart has its refuge, unfailing and strong;
Where the cares of the world sign a partial release,
And the soul can lie down to a sweet sleep of peace!
The mine where we dig out affection's pure gold,
The fire where we warm our poor hearts when they're cold!
The grand, tender chorus, by love's fingers stirred,
Where all the sweet tones of the soul-life are heard!

—Will Carleton

LOVE THE MAINSPRING

No woman can do her housework well unless she loves it; and she can never learn to love the daily routine unless she holds within her bosom a great fountain of love for the husband and children for whose comfort and joy and welfare she labors. Love should be the mainspring of every action, the source of order, and the basis of rule.

DISCIPLINE AND ORDER

Home can not be a delight to the members of the family circle without well-maintained rules of discipline and order. It is equally impossible for the family to enjoy a

Home is the sacred refuge of our life.
—Dryden

sense of rest and refinement unless the housekeeper has done her work thoroughly and well, and given a touch of love, and art, and genius to everything about the home. Cleanliness and good order give to the members of the household, even to the smallest child, a feeling of self-respect, confidence, and satisfaction.

In a well-ordered home, the wife is not worried lest her husband may, without notice, invite a friend to dinner; and when occasion offers, the husband is not afraid to bring his friend, without sufficient warning to enable his wife "to get the house in shape." In such a home the children are more quiet, the husband more careful of his personal appearance, and a refining influence naturally pervades the place.

EXAMINE THE CORNER-STONE

Such order, thrift, and cleanliness are right, but their influence upon the art of home-making, as compared with the science of housekeeping, depends upon the source from which they spring. If they are all the outgrowth of a great, true love for home, and for each member of the family circle; if the cleanliness and thrift are the products of a mother's love; and if every plan and regulation is formed with a true sense of right and justice, and with a tender consideration for the diversity of tastes in the members of the family, the result will be a home. But, on the other hand, if order is the fetish to which all else is sacrificed; if pride is the mainspring; if a determination to be "the best housekeeper in town" is the corner-stone of this building, the result will be a house.

"LIBERTY HALL"

Under this heading a practical housewife contributes a few interesting suggestions in a letter to the *Woman's Home Companion*. She says:—

He is happiest, be he priest or peasant, who finds peace in his home.—Goethe

"Making my home enjoyable is my greatest pleasure. If my husband wants one shade rolled to the top of the window, and another clear to the bottom, or wishes the couch in another position, he is at liberty to suit himself. If papers or cushions are scattered, or mud is tracked, no undue fault is found. The cushions, footstools, hammocks, etc., are for use, and the family enjoys them to the fullest extent. My flowers are picked and worn or carried by those who wish them, and individual tastes are consulted in preparing food or refreshing drinks. The little ones are taught that books, magazines, or anything else that they can enjoy without destroying, are for use, not abuse, and are allowed free access to them. If anybody is ailing, I do my best for the patient, and enjoy the appreciation which is felt for my effort. My lack of cast-iron rules makes each one feel that home is the best place on earth, and every evening finds us enjoying a complete family circle. This alone repays me for the extra steps I often have to take in suiting so many different tastes." Such a kind adaptability to the varying tastes in a household is one of the finest arts in housekeeping.

YOUTH'S BEST ANCHORAGE

Those of you who are best acquainted with the world or who have read most extensively the best histories of men, will allow that, in the formation of character, the most telling influence is the early home. It is that home which often in boyhood has formed beforehand our most famous scholars, our most celebrated heroes, our most devoted missionaries; and even when men have grown up reckless and reprobate, and have broken all restraints, human and divine, the last anchor which has dragged, the last cable they have been able to snap, is the memory which moored them to a virtuous home.—*Dr. J. Hamilton*

"Wealth, honor, or learning is dearly purchased if it be at the loss of the vigor of health."

A clean, well-ordered home is a power for good in holding together and educating the children of a family, but it requires more than an ever-whisking broom and duster to make it, as is aptly told in the following poem:—



QUITE TOO SWEEPING

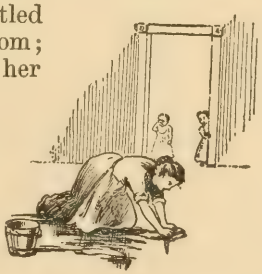
There once was a woman so woefully neat
That she swept her whole family into the street.
She lectured on tidiness day after day,
Till her children ran off to the neighbors to play.



And sometimes the "lord of the manor" would roam
From his beautiful house—which was never a home.
'Twas a splendid expression of beauty and art,
But it did not possess a home's requisite.—heart.



But this woman worked on with her brush and her broom,
With her servants she battled through room after room;
She waxed and she polished her beautiful floors
Till her friends hardly ventured inside of her doors



Her carpets so velvety one would refuse
To walk on, until he had dusted his shoes;
Her chairs all so tidied, without and within,
That to sit on them seemed little less than a sin.

Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth. 3 John 2



Her children had toys which they never could spread
O'er immaculate floors; nor could
cookies or bread
Be eaten where crumbs might be
scattered about,
For her house was like
"wax-work" within
and without.
Of dust, just the least
little innocent bit
Would bring on a something akin to a fit.
And a tidy or picture a trifle awry
Could never escape her most diligent eye.





Her children grew up, and they hurried away
As soon as they could, scarcely caring
to stay
Where brooms were a-whisking; they
sighed for a nest,
Still neat, but inviting a spirit of rest.
And the day when the last of her little ones
left,
And the home of their smiles was forever bereft,
She said, while for dust she still searched up and
down,
"They know I'm the finest housekeeper in town."

—*Nixon Waterman*

HEALTH

"The glory of young men is their strength," says the Word of God. Strength is one of the attributes of the Eternal One, who calls Himself "our Strength," "the Strength of Israel."

In an excellent article on the strength of young men, "Abdiel" says:—

"Where is there to be found a live, well young man who does not rejoice in his strength? He likes to be called

"Health is Nature's reward for conformity to her laws."

strong. He swings his dumb-bells or Indian clubs, practises on the horizontal bar, and delights in games which try the physical man. The Lord likes strong men, or He would never have left a record of the interesting ones of His Word, such as Samson, Asahel, Jeshobeam, and all the mighty men of David. No part of Scripture delights a growing youth more than the story of Samson. William Wallace, the hero king of Scotland, who was twice as strong as Bruce, and Bruce as strong as any other two Scots, draws his unbounded admiration.

"He admires the great warriors and fighters, who against great odds have won decisive victories by their great strength. The story of Washington's strength holds him; and he cares more to hear tales of Lincoln's mighty thews than of the Emancipation Proclamation.

"It is good to be well, and symmetrical, and strong. Therefore rejoice, O young man, in thy strength. It is a splendid possession if rightly used."

NATURE'S VITAL FORCES

Those means by which we secure strength and retain it are also the best means for recovery from sickness. Important among these are—

Pure air
Pure water
Good food
Suitable clothing
Cleanliness
Sunlight
Exercise
Rest.

If everybody would make it a business to become intelligent on the physiological effects and values of these

"If we would have health, we must live for it."

vital forces, and the injurious effects of poisonous drugs and patent medicines, the larger per cent of sickness would be prevented, and recovery from illness would be more certain and rapid.

RULES OF HEALTH

The following comprehensive rules of health include some of the most important principles of healthful living presented in this volume:—

1. "Keep thyself pure." Purity is the corner-stone of health.

2. Be temperate in all things. Temperance is the discarding of all that is harmful, and the moderate use of that which is good.

3. Preserve the general health and vitality by plain, simple habits of living; eat good, nourishing food; take sufficient exercise and rest; and there need be but little fear of harm from the many disease germs of which we hear so much. Physical vitality is the best shield from their attacks.

4. Provide clothing which will best protect all parts of the body from extremes of heat and cold.

5. Avoid such styles of fashionable dress as restrict the body, or leave the extremities without proper protection.

6. Live in the open air as much as your work and the climate will permit, and make sure that business offices, and all the rooms in the home, and particularly the sleeping-rooms, are well ventilated.

7. Great care should be taken to provide a pure water supply. If there is any reason to doubt the purity of the water, it should be boiled or filtered before drinking.

8. Welcome the sunlight. It is one of nature's most powerful remedies and disinfectants.

Happiness, first of all, in health.
—Phillips Brooks

9. Do not permit social functions nor a pressure of work to infringe upon your regular hours for sleep. Eight hours should be set as a minimum for sleep. Some people require more.

10. Take one or two hours' physical exercise each day, and let it be sufficiently vigorous to start a free perspiration.

11. Engage in some useful, interesting labor, whether dependent upon it for a livelihood or not. Laziness invites disease.

12. Avoid extremes and overstrains in labor, exercise, study, and recreations. Blessings which naturally give health and strength are destructive to both when carried to extremes.

13. Take a warm bath at least once or twice a week for cleanliness, and a hand rub each morning as an invigorating exercise and tonic.

14. Food should be thoroughly masticated. In the bill of fare preference should be given to foods that are not too soft and mushy to require mastication.

15. Be regular at meals, and as a general rule, allow from five to six hours between meals.

16. For brain workers whose digestion is slow, two meals a day are better than three. If a third meal is taken, it should be light, simple, and composed of food easy of digestion.

17. Complex mixtures of foods, highly seasoned dishes, and large quantities of sweet or greasy foods, are injurious.

18. Avoid impure food of every kind.

19. Milk should be sterilized unless it is known to be pure.

20. Avoid vigorous exercise of either body or mind immediately after meals. Pleasant, moderate exercise for thirty minutes after meals is beneficial.

"A brilliant intellect in a sickly body is like gold in a spent swimmer's pocket."

21. Be cheerful and hopeful at all times, especially at meals. Be content with your food, and do not fear it will hurt you. Provide wisely for the needs of the body, and then be happy. Fear and anxiety make dyspeptics, as surely as poor cooking and unwholesome food.

22. Overeating, and the combining of many kinds of food at one meal, are among the most fruitful causes of indigestion.

23. The habit of drinking large quantities of liquid at meals, and of washing down the food instead of masticating it properly, is very injurious.

24. Discard all stimulants and narcotics.

25. The mind should always be at rest and at peace with God and man.

26. Do not worry. Worry is a destructive rust upon the vital machinery of both body and mind.

THE WORRY THAT KILLS

It is not the work, but the worry,
That wrinkles the smooth, fair face;
That blends gray hairs with the dusky,
And robs the form of its grace;
That dims the luster and sparkle
Of eyes that were once so bright,
But now are heavy and troubled,
With a weary, despondent light.

It is not the work, but the worry,
That makes the world grow old;
That numbers the years of its children
Ere half their story is told;
That weakens their faith in heaven,
And the wisdom of God's great plan.
Ah! 'tis not the work, but the worry,
That breaks the heart of man.

—*Inez May Felt*

SECTION ONE

The Home

The Joy of Home

We have roamed in the fragrant fields,
And we have lived with the murmuring trees;
We have heard the love talk of the birds,
And the whisper of the breeze.

We have rocked on the laughing wave,
Where the breaker tossed its foam;
Now we turn again, as the bright days wane,
To the happy hours of home.

For not on the mountain top,
Nor yet in the softest vale,
Not where the canvas fills and strains
To the boisterous summer gale,—

Not in the secret wood,
Though the restless heart may roam
The world around, can joy be found
Like the joy of love and home.

—Mary F Butts



A HAPPY FAMILY

Sweet are the joys of home,
 And pure as sweet; for they,
Like dews of morn and evening, come
 To wake and close the day.

The world hath its delights,
 And its delusions, too;
But home to calmer bliss invites,
 More tranquil and more true.

The pilgrim's step in vain
 Seeks Eden's sacred ground;
But in home's holy joys, again
 An Eden may be found.

A glance of heaven to see,
 To none on earth is given;
And yet a happy family
 Is but an earlier heaven.

—*John Bowring*

AVOID UNHEALTHFUL LOCALITIES

In laying the foundation for a suitable home where life and health may bloom at their best, one of the first and most important questions is its location. A mistake in this selection, even on what may seem a small point, may prove disastrous to the health and happiness of the entire family. A malarious district, an impure water supply, low, flat country and swamps, or close proximity to some vile factory or death hole, may prove fatal in spite of the best principles and regulations of a well-ordered home life.

The first and most important question should be, Is the location healthful?

MALARIOUS DISTRICTS

If any locality is known to be malarious, or if other fevers or serious diseases are known to infest the place, that should be sufficient to condemn it.

LOW, FLAT COUNTRY

Never build a home in a low, flat place, where water naturally settles and becomes stagnant.

HEAVY SOIL

If possible, avoid settling upon heavy soil where every little hole is likely to retain water until putrid and stagnant,—a breeding-place for pests and disease. Porous soil, with some sand or gravel, is far better.

SWAMPS AND STAGNANT POOLS

Do not locate in the vicinity of large swamps or marshes, or near mill-ponds or other stagnant water, for they will surely contribute troubles in the form of mosquitoes, malaria, stenches, etc.

MILLS AND FACTORIES

Build far away from mills and factories. The disadvantages of a location near them are many:—

Bad smells and filth may be extremely offensive.

Smoke from the chimneys will be a nuisance.

Neighbors may not be desirable.

District will be crowded.

Children may have dirty, uncouth playmates.

Unsanitary conditions are likely to prevail in the whole neighborhood.

WINDWARD SIDE OF EVERYTHING BAD

If compelled to make a home in the vicinity of anything that might prove offensive or injurious to health, ascertain the direction of prevailing winds, and build to

"A porous soil possesses great advantages over any other."

the windward side. Then do as you would be done by,—keep your home so clean and wholesome that no one will need to seek the windward side of you in order to avoid a nuisance.

DUST FROM THE STREET

So far as possible, keep off from dusty thoroughfares. If compelled to locate on a dusty street, build your house on the windward side of it. Otherwise, in dry times, the wind will constantly sift the filth and dust through every crack and crevice of the house, when a little forethought would have directed you to the other side of the street, where you could throw open your windows and doors and invite the breezes fresh from the fields.

COUNTRY HOMES

God made the country, and man made the town;
What wonder, then, that health and virtue, gifts
That can alone make sweet the bitter draught
That life holds out to all, should most abound
And least be threatened in the fields and groves?
—*Cowper*

Yes, God made the country. It is man's natural home. In the beginning, God placed man in a sweet, roomy garden. This was his home. Fruitful fields, the grand old forests, purling brooks, and singing birds, country breezes, and smiling flowers,—these are the environment of health, a well-spring of the joys of home. If your daily toil is in the city, build your home as far from its din and turmoil as circumstances will permit.

Rapid transit cars running from the centers of all our large cities out into the suburbs and rural districts, make it possible for business men to enjoy the rest and quiet and health-giving pleasures of country homes

Amid the rush and din and day-and-night traffic, the

weary nerves can not rest; the air is impure; disease lurks on every side; the heavy strain of care is carried by day, and hardly thrown off by night. But a quiet home just beyond the traffic gives daily rest, pure air, land for a garden, daily exercise, and a clean environment for the family.

The fact that ninety-eight per cent of all the crime committed is committed in the cities, is sufficient proof that the country is the better place to locate the home and to bring up a family.

ROOM

What's life in a city? There's no room to spare;
Men are crowded in corners and scanted of air;
Too near to be neighbors, too fretful for friends,
Each man jostles each as he seeks his own ends.
There are folk underneath you, and folk overhead,
And the noise of the street comes to vex you in bed;
The jangle of car-bells, the cab-whistle shrill;
All the hum and the stir and the dust of the mill
That is grinding all day and grows louder at night,
Conspire against comfort and banish delight.
O God, for the country!—the singing of birds,
The laughter of children, the lowing of herds,
Green grass and blue heavens, bright water, clean air,
And room enough, room enough, room and to spare.

—*Henry Johnstone, in the Outlook*



A VITAL CONSIDERATION

There are many apparently small points in fixing the exact site of a house which should receive intelligent study. A little forethought will often save mistakes of a serious nature. Many beautiful, expensive houses are uncomfortable, unsanitary, or unsightly because of carelessness in selecting the site. The cellar is damp, and water stands in it during the wet season; water settles around the house; surface water runs from the barns to the house; prevailing winds bring foul odors; the verandas are on the bleak side where they can be little used; and the sun, instead of being wholly a blessing, shines into each room at the wrong time of day. All such points should be guarded.

In selecting the exact location for the house, the following important points should be taken into consideration:—

SURFACE DRAINAGE

It is of vital importance that there be good, natural drainage away from the dwelling, not only for the purpose of carrying away waste water, but also that the water from heavy rains and melting snow may flow quickly away, leaving the grounds dry. Therefore the top of a knoll, or an easy rise of ground, sloping from the house in all directions, is preferable. If the house occupies the highest point on the ground, the drainage from the barns and sheds will be away from the house instead of toward it, as is too often the case; and it will not be difficult to locate the well and cistern so that they will not be contaminated by the seepage from the cesspool or barn-yard.

"The center of a knoll or rise of ground is the most desirable spot for a dwelling-house."

WHICH WAY THE HOUSE SHOULD FACE

In the northern hemisphere it is best that the house should face either east or south, according to the style of building and the arrangement of the rooms, the point of chief importance being that every room, as far as possible, receive a flood of sunlight sometime during the day. Proper consideration should also be given to the outlook, so as to make the prospect as pleasing as possible from the living-rooms.

ITS RELATION TO OUTBUILDINGS

Barns and other outbuildings should be made so attractive in appearance, and be kept in such a sanitary condition, as to make it unnecessary to locate them far away out of sight. But even then it is best to build them a reasonably good distance from the house. They should be built on the lee side of the house, so that the prevailing winds will carry away unpleasant odors.

PROTECTION FROM COLD WINDS AND STORMS

In cold climates where bleak winds prevail, it is often desirable to build on the sheltered side of a hill or forest as a protection against the winter blasts. In hot climates it is equally desirable to locate where the refreshing land and sea breezes can be best enjoyed.



CARE

A man would build a house to shut out care,
And so he called a skilful architect—
Who with house-building knew somewhat of man—
And with this object bade him draw a plan.

"But," said the architect,—"Nay, 'but' me not;
I want no 'buts' until I find them." "Which,"
Replied the builder, "you are sure to do
If they exist." And so a plan he drew.

Exact in every detail, full, complete,
Where naught was wanting for convenience. Here
Was room for joy, comfort, and pleasure; yet
No room for drafts, disease, disturbance, debt,

Or even death. Naught to be wished for,
Suggested, hoped for, or complained of. "But
The entrance?" asked the now delighted man.
"Where will you draw the doorways in this plan?"

"These are inside," the architect replied.
"No outside doors?" "Why no. This would not do.
You must not enter would you shut out care,
Lest you should bring it in your clothes, or hair."

—*Mattocks*

PLAIN ARCHITECTURE

The style of the house should be plain and simple, and should give an impression of refinement and dignity. The fussy "gingerbread" style is neither economical nor artistic. Ruskin's common-sense rule for dress is that that style is best which is never noticed nor commented upon. This rule is also a good one in building. Many projections

Houses are built to live in, and not to look on.
—Bacon

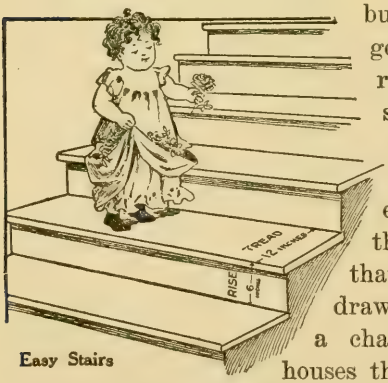
and angles and valleys mean accumulations of dust and rubbish, leaky roofs, and stained ceilings and walls. The plain, well-built house is less expensive, more practical, and by far the more beautiful.

ONE OR TWO STORIES

Perhaps no special objection can be offered to a two-story house, if the common evils often attending them are eliminated. In cold countries it is more practical and less expensive to heat the same number of rooms in a two-story house than in a one-story cottage. But wherever it seems practical to do so, it is better to build only one story high, as thus the house can be arranged more conveniently, and the work can be done easier. In fact, it is stated by physicians that many female diseases are caused by going up and down stairs too often while doing the work of the day.

STAIRS AND STAIRWAYS

In houses of more than one story the stairs should be built with the health of the good housewife in view, rather than for economy of space. The rise of each step should be only five or six inches, and the tread eleven or twelve inches, and the width should be such that the furniture need not be drawn up by a pulley through a chamber window. In many houses the stairways are so narrow and crooked that anything is carried up with difficulty. The stairs shown in the cut are so broad and easy that the baby with her flowers can climb them readily.



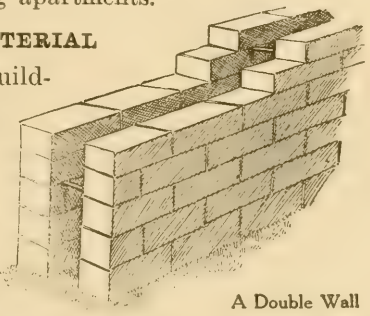
Easy Stairs

Grandeur has a heavy tax to pay.
—Alexander Smith

REGISTERS

One of the worst features of a two-story house is the very common register from the lower rooms to the sleeping-rooms above. These are put in for economy in heating; thus the impure air, generated in the rooms below during the day, together with the odors from the kitchen, ascend into the sleeping-rooms to vitiate the atmosphere and unfit them for sleeping apartments.

MATERIAL



A Double Wall

The best material for building depends to some degree upon the climate, and what materials are most available in the locality. The house should be well built, and every possible precaution taken to guard against dampness; for damp, unwholesome rooms with moldy walls are deadly enemies to health. It should also afford protection against storms and wind at all seasons, against cold in winter, and against the severe heat of summer.

Wood for building can be obtained in almost any country. It is generally the cheapest material, and under most conditions it is the best. The best quality is the cheapest in the end.

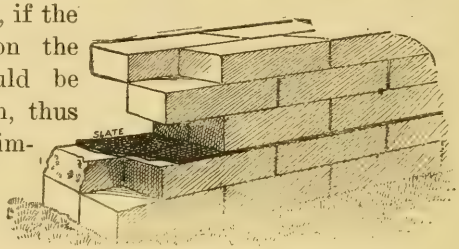
Stone and brick are also excellent building materials. They afford rather better protection against the cold of winter and the severe heat of summer than wood. Special precautions are necessary, however, in the construction of these buildings to guard against dampness; and they need to be well heated or they will become cold, disagreeable, and damp in winter. Brick walls should be built

Except the Lord build the house, they labor in vain that build it. Ps. 127: 1

double, leaving an air-chamber between the parts; and when building, these should not be allowed to fill up with dirt or mortar, as is often the case.

As an added precaution against dampness, it is also well to paint the bricks on the outside.

In some localities it is difficult to obtain brick that do not draw up moisture, more or less, from the ground. Therefore it is well in building to put a layer of slate, or some other water-proof material, in the wall below the floors. In all houses, if the chimney is built on the ground, there should be this same precaution, thus preventing damp chimneys.



A Layer of Slate in Foundation Walls

All houses should be built with a basement at least two or three feet high, thus raising the floor well above the damp soil, and admitting a free circulation of air. This space beneath the house should be given a thorough cleaning frequently.

The walls should be whitewashed, and lime or other disinfectants scattered on the ground. If the floor is low, the space is likely to become a hiding-place for all manner of filthy creatures and pests. Sick cats, rats, and chickens are sure to choose such a haunt to die in. Thus the space below the living-rooms becomes a vile pest-hole, sending stench and disease through every room in the house.

CEMENT HOUSES

Many people are beginning to appreciate the beauty, cheapness, and durability of cement houses. They never need painting, and if the roof is also made of cement, as

Prepare thy work without, and make it fit for thyself in the field; and afterwards build thine house. Prov. 24: 27

it often is, one need never fear leaks, or dread the expense of reshingling. These homes are beautiful, economical, and practically indestructible by fire or time,—warm in winter and cool in summer.

WINDOWS

The windows are the eyes and lungs of the house. In every room there should be plenty of windows, and they should be arranged as conveniently as possible for admitting air and sunlight. Though other means of ventilation may be provided, the doors and windows, in most houses, will be depended on for ventilation.

They should occupy from one-fourth to one-third as much space as the surface measurement of the floor; that is, if the room is twelve feet square, the windows should occupy a space amounting to from thirty-five to fifty square feet. Windows should be built with two sashes, and each sash hung upon pulleys by cords and weights. Solid windows, in one piece, can serve only half their rightful purpose, and hardly that; for they admit only the light by day, and are of no use by night. It is not an uncommon experience when traveling to find one's self incarcerated in a damp bedroom, with every window heavily curtained and nailed down. Such ignorance and stupidity is a crime of the first magnitude against health.

FRENCH WINDOWS

In very hot climates where verandas are built on all sides of the cottages, French windows are pleasant, and assist very practically in keeping the house cool and well ventilated. In colder climates they are pleasant during the hot summer weather, but they let in the cold too much in winter time. Many similar features in house building are good or bad according to the climate. All such conditions should be met intelligently.

The house of the righteous shall stand.
Prov. 12:7

ARRANGEMENT OF ROOMS

Every one has his own fancy for arranging the rooms of his house, but there is one rule which should be universally observed; that is, that the rooms and windows be so arranged that every room may receive a flood of sunshine during some period of the day. In hot countries the kitchen should be on the west side and the living-room on the east side of the house; so the kitchen will be cool during the early part of the day when the kitchen work is being done, and the living-room will be cool in the afternoon when it is most used.

VERANDAS

Wide, roomy verandas are a delight, particularly in hot countries, but they should not be built so as to shut out the sun entirely from any room in the house. A fine veranda is a blessing, but sunshine in our homes is a greater blessing, and should never be sacrificed. If the house fronts to the south, a wide veranda may be built entirely across the front, if side windows are provided in each of the corner rooms, so that one room gets the sun in the morning, and the other in the afternoon. Instead of studying to shut the sunlight out, as is often the case, we should study the most effective means for letting it in.

INSIDE FINISH

Plaster is a much better finish than wood, both for walls and ceilings, for it does not afford a convenient home for pests. Walls should be plastered down to the floor; otherwise they become a home for insects which find their way into the rooms beneath the base-boards.

Hard, smooth finish for the walls is the most wholesome, as it does not give a lodging-place for dust. Two coats of paint over a first-class glue sizing is the best finish

The house of the wicked shall be overthrown.
Prov. 14: 11

for plastered walls; for it is smooth, and can be washed and disinfected easily if necessary. If the work is well done, it is durable and economical.

Paper is not so good, for it gives more or less hiding-places for vermin, and some qualities of paper throw off poisons which are injurious to health.

Floors should not be left without finish, for they absorb too much water when cleaned, and make the rooms damp. They are more wholesome, and save unnecessary labor, if well-finished with oil or paint. Floors finished in this way do not require so much covering, and are therefore more sanitary.

Hard oil makes a good finish for the woodwork. Nothing is more beautiful than the natural wood; the expense is but a trifle more than paint, and the smooth, glossy casings are a delight to the housekeeper, and are easy to keep clean.

HEIGHT OF CEILINGS

All rooms should be at least ten feet high in the clear. In hot countries eleven or twelve feet is better.

LIGHTING

In this electric-lighted age, when electric wires are being thrown across the country everywhere, the possibilities of an electric-lighted house are coming nearer to all, even to farmers in the country. This is a great convenience, and should be secured wherever available.

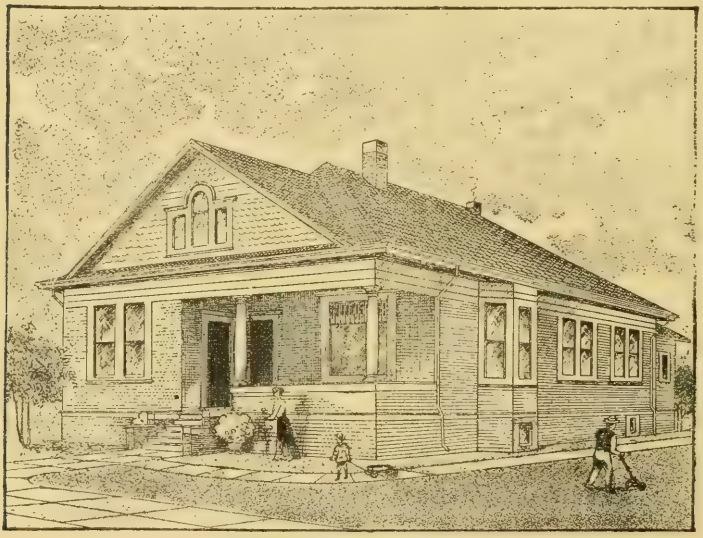
When building a house, if you anticipate lighting either with gas or electricity, the pipes or wires should be put in, so that the house may not be marred by installing the plant later on.

From the standpoint of health, electricity is the best for lighting, as it does not consume the oxygen as do kerosene lamps or gas.

To Adam, Paradise was home. To the good among his descendants, home is Paradise.—Hare

A PLAIN COTTAGE

The following drawings in this chapter are made from photographs taken from a plain, one-story cottage suitable for a warm climate. The object in referring to this cottage is to make clear by description and illustrations a few details which are important in building such a house. This

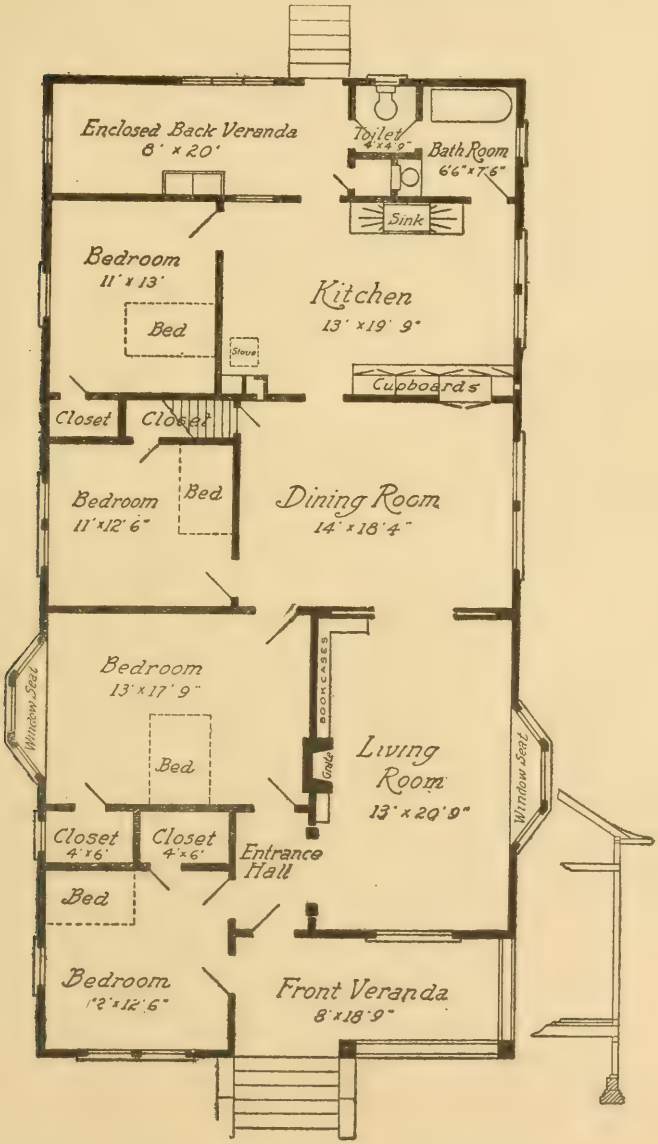


A One-Story Cottage

plan is not suggested as a model of architecture or convenience, but the general principles may be applied to any good plan.

FOUNDATION AND CELLAR

The foundation is made of cement and gravel in a proportion of one to eight. This part of the basement is built about twenty inches above the surface of the ground, and fully ten inches above the sidewalk, to allow for proper


Enclosed Back Veranda
8' x 20'
Toilet
4'x4'0"
Bath Room
6'6"x7'6"
Sink
Bedroom
11' x 13'
Bed
Kitchen
13' x 19' 9"
Stove
Cupboards
Closet
Closet
Bedroom
11'x12'6"
Bed
Dining Room
14' x 18'4"
Bedroom
13'x17'9"
Window Seat
Bed
Book Cases
Grate
Living Room
13' x 20'9"
Window Seat
Closet
4'x6'
Closet
4'x6'
Entrance Hall
Bed
Bedroom
12'x12'6"
Front Veranda
8'x18'9"

Ground Plan

The construction of the house should be such as to secure an abundance of air and sunshine.

grading. The basement of wood is three feet high above the cement.

The cellar bottom and sides are finished with cement, and around the cellar on all sides is a shelf of earth three feet wide and three feet high, covered with cement.

SUNSHINE AND AIR

The rooms are large and high, windows are large and plain, both sashes being hung on weights. As the house faces the south, every room gets the sunshine at an hour of the day when it is most agreeable.

Notice on the ground plan the arrangement of windows, doors, and beds in the sleeping-rooms. In each room, a door and a window opposite can be opened at night for free ventilation without a direct draught across the sleeper. Full-sized screens are provided for the windows so they can be opened at all times without admitting flies or mosquitoes.

PLASTERING

The plastering is three-coat work. The first two coats are of wood-fiber, and the last is of lime gaged with "alpine." This combination will resist quite a heavy blow from a hammer, and will stand uninjured through a severe earthquake, when the walls would be stripped of ordinary lime. All the rooms are plastered down to the floor. The ceilings of the living-room, dining-room, and entrance-hall are coved.

CHIMNEYS

The mortar for the chimneys was gaged with cement. In many cities this is required by law to give strength to the chimneys. As an added precaution against the danger of the chimneys falling from earthquake shocks, they are supported on each side by a two-by-four-inch joist.

Fireside enjoyments—home-born happiness.
—Cowper

FINISH

The finish is mountain pine, cut slashed-grain, and well dressed. It is light, beautiful, and inexpensive. Such prettily grained wood should not be covered with paint. The natural grain can hardly be improved.

BOOKCASES AND MANTEL

The bookcases are "built in," with adjustable shelves that can be arranged according to the size of the books to be placed in them. These are more artistic than movable



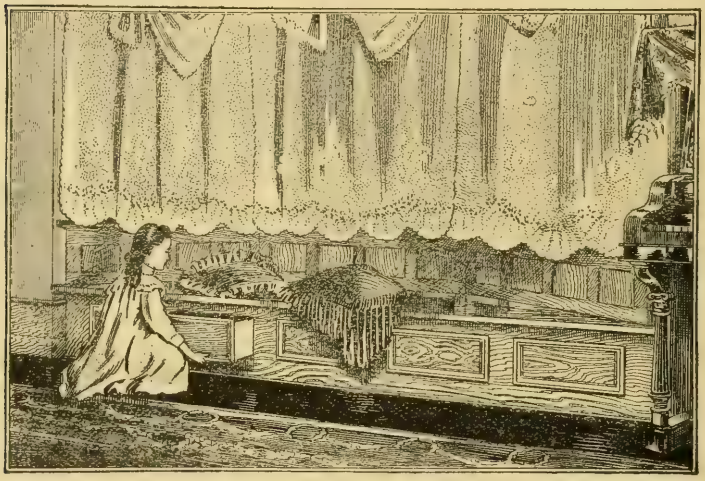
A Corner of the Living-Room

bookcases, and are less expensive. For economy and fitness, the mantel also is built of the finishing lumber. That portion of the walls of the living-room back of the bookcases is finished six feet high, like the dining-room, with paneled wainscoting. This forms the back of the bookcases, and a pretty finish above them.

"Every wise woman buildeth her house."
Prov. 14:1

WINDOW-SEATS

The window-seats are fitted with blind panel drawers for photographs and curios. A lid is liable to split or warp. The space between the seat and window casing is



A Practical Window-Seat

paneled. This is a pretty protection where the plaster might be damaged and spoiled.

CUPBOARDS

The drawing shows clearly the arrangement of the large kitchen cupboards. Located in a roomy, light kitchen, they are a good substitute for the ordinary pantry, and are kept clean much easier.

FRESH-AIR CUPBOARD

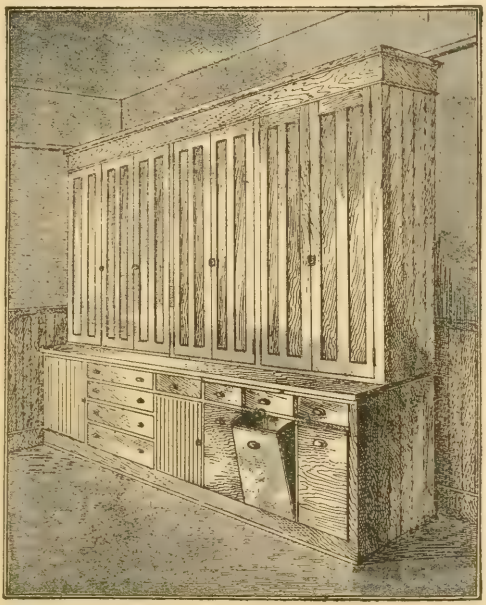
This is a great convenience, particularly in warm weather. The fresh air enters through an opening in the

There is no feature of a pantry which is not improved by being placed in the kitchen.

wall, and passes up through each shelf at alternating ends, and out at the top. The active circulation keeps the cupboard fresh and cool even in the hottest weather.

THE STOVE CUPBOARD

There are never too many cupboards, if they are kept orderly and clean. Under the chimney, on the left-hand side of the stove, is a handy cupboard for coal, wood, kindling, flat-irons, and the stove furnishings. They are all close at hand, but out of sight. The cupboard is divided into four sections; the lower for the coal-hod, the next for the wood, and the two shelves above for the stove furnishings. Only the tidy housekeeper will prevent this convenience from becoming a dirty catch-all.



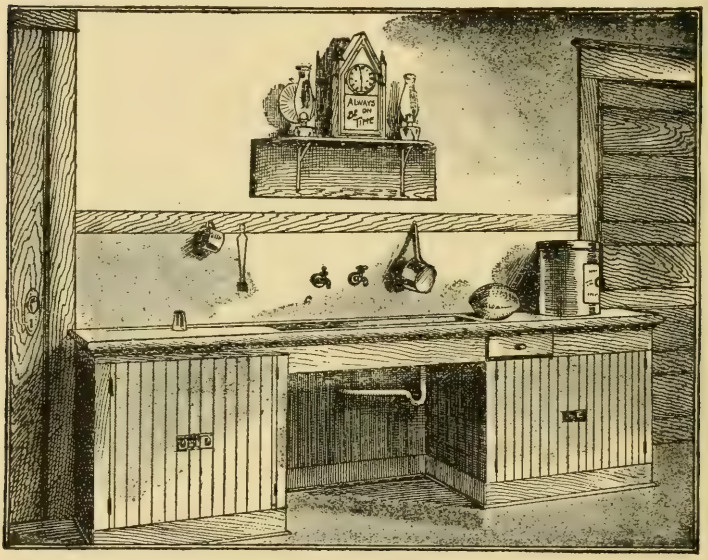
The Kitchen Cupboard

THE SINK

A good sink is always worth mentioning. The one shown in the drawing is very satisfactory. It is open underneath, and can be easily kept clean. A cupboard is built

Every wise woman buildeth her house.
Prov. 14: 1

on each side of the sink, under the draining boards, for kettles and tin dishes. There are no convenient cracks in which filth and germs may collect. The wall back of



A Sanitary Sink

the sink is enameled, and the clock, on the shelf above, says, "Always be on time."

BATH-ROOM AND TOILET

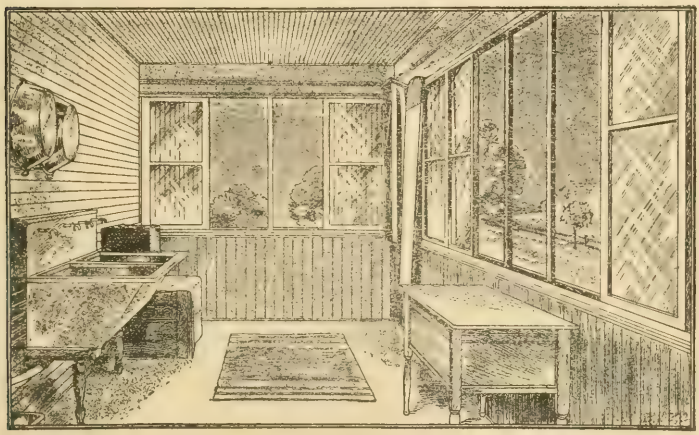
As will be seen from the ground plan, these are conveniently arranged for a large family. The toilet is not in the bath-room, but is convenient to it. It can be entered from the back veranda also, when the bath-room is in use.

BACK VERANDA

The back veranda is eight feet wide. Many verandas are only five or six feet in width. The extra two feet costs

It fell not, for it was founded upon a rock.
Matt. 7: 25

but little, but fully doubles the value of the veranda for practical use. It is enclosed with screens and sliding windows, the screens to keep out flies and mosquitoes, and



Enclosed Veranda

the windows to shut out the storms when necessary. An open veranda is of little use in stormy weather.

PLUMBING

First-class, sanitary plumbing has been installed, with hot and cold water. Each fixture is supplied with trap and vent. There is no trouble from unpleasant odors. It will be noticed that the fittings are so grouped that the plumbing could be done at a minimum expense.

OUTSIDE PAINTING

The roof has two coats of graphite lead and oil, put on with a hand brush. The body of the house has three coats. The first, or priming coat, is of oil with equal parts of lead and ocher; the second of lead and oil; and the

"He entered his house—his home no more, for without hearts there is no home."

third of zinc and oil. In warm climates, near the sea, the zinc will resist the action of the hot sun, salt air, and fogs much better than lead.

INSIDE PAINTING

The wood finish is filled with white shellac, rubbed down smoothly with steel wool, and varnished. The plastered walls are painted three coats. The first is glue sizing, and the next two are lead and oil, stippled to remove all the brush marks. Plastered walls well painted on a good surface will look well for ten or more years, while tinted walls need a fresh coat about once in two years. Besides, the painted walls can be easily washed and kept clean and sanitary.

FLOOR PAINT AND COVERINGS

The veranda floors are painted, the kitchen, bath-room, and toilet floors are covered with linoleum, and the living-room, dining-room, and bedrooms have art squares, with a floor-painted border from one to three feet wide. The painted border is three-coat work. The first two coats are lead and oil, and the finishing coat is half lead and oil, and half "marnot" varnish. This finishing coat is durable, is easily kept clean, and looks well.

COST

Where material and labor are very high, the cost of the cottage here described, fitted completely with electric fixtures, private sewerage, sidewalks, shades, curtain-rods, etc., is about $3,000. Where building is least expensive, the cost might not be more than $2,250. For a small family, the plan can easily be cut down so as to cost not more than from $1,500 to $2,000, without cheapening the quality of the work.

Sewerage,

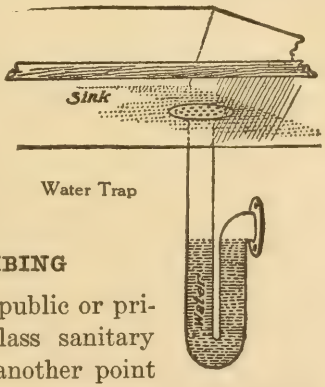


A CAUSE OF DISEASE

The provision of proper sewerage for a house is of first importance. Failure in this is the cause of a large per cent of malignant diseases. The care of sewers will be treated elsewhere. We will here consider the construction of sewers under various conditions.

CITY SEWERAGE

When a general system of sewerage is provided by the town or city, this question is much simplified. The householder then simply assumes the responsibility of a citizen, to see that a first-class system is provided, which is in itself sanitary, and does not endanger the public water supply, or jeopardize the health of the community in any way.



SANITARY PLUMBING

Whether the sewer system is public or private, the importance of first-class sanitary plumbing is the same. This is another point in house-building where it does not pay to be too saving of money. It is poor economy to put in cheap, unsanitary plumbing, and then spend many times as much in doctor's bills, besides wrecking the health of the family. In putting in water fixtures, the following points should be observed:—

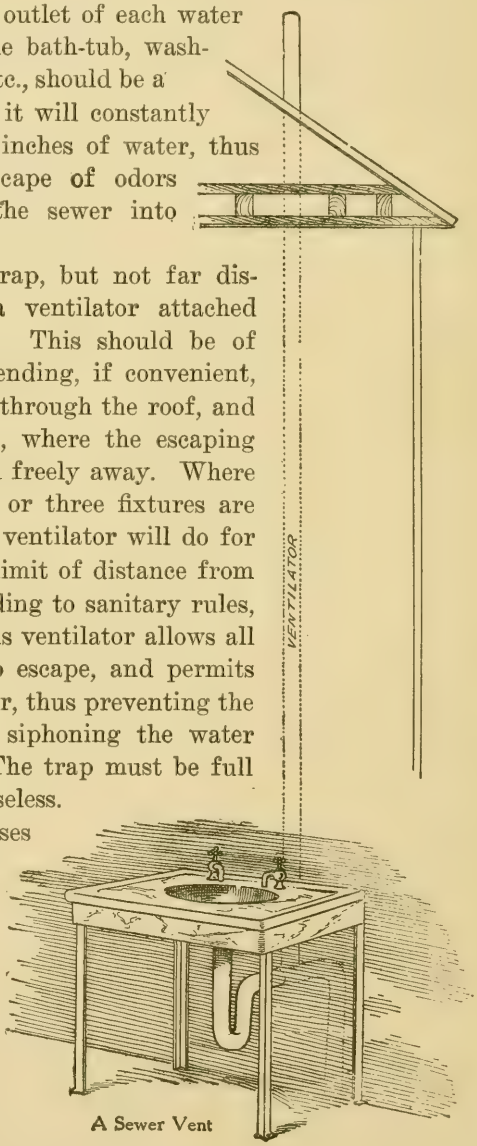
1. The work should be done by a first-class plumber, who understands thoroughly the most approved rules for sanitary plumbing, and will do the work honestly.

Through wisdom is an house builded.
Prov. 24: 3

2. Beneath the outlet of each water fixture, such as the bath-tub, wash-bowl, sink, toilet, etc., should be a trap, so bent that it will constantly contain about six inches of water, thus preventing the escape of odors and gases from the sewer into the house.

3. Below the trap, but not far distant, should be a ventilator attached to the waste-pipe. This should be of two-inch pipe, extending, if convenient, inside the wall up through the roof, and above all windows, where the escaping gases will be blown freely away. Where the outlets of two or three fixtures are close together, one ventilator will do for all. The extreme limit of distance from a ventilator, according to sanitary rules, is fifteen feet. This ventilator allows all gases and odors to escape, and permits also an inrush of air, thus preventing the drain water from siphoning the water out of the trap. The trap must be full of water or it is useless. If empty, the gases escape readily into the house.

4. Iron sewer-pipes should be used to carry waste water six feet beyond the wall of the house.

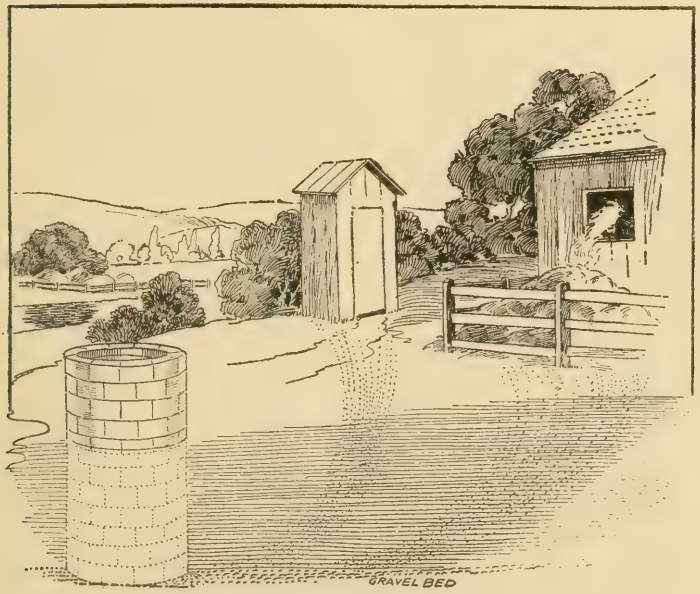


A Sewer Vent

Give a wise man health, and he will give himself every other thing.—Colton

The lengths of pipe should be cemented together solidly, so that neither gas nor water can escape.

5. If you wish to have a slop-hopper, do not make it



How the Well Becomes Impure

of wood. Buy an iron one. The wood will soon become water-soaked and filthy. The iron hopper is usually provided with a shallow trap in the bottom. Unless it is an unusually good one, do not depend upon this to prevent escaping gas. Provide another trap in the waste-pipe below the hopper, and thus make it absolutely reliable.

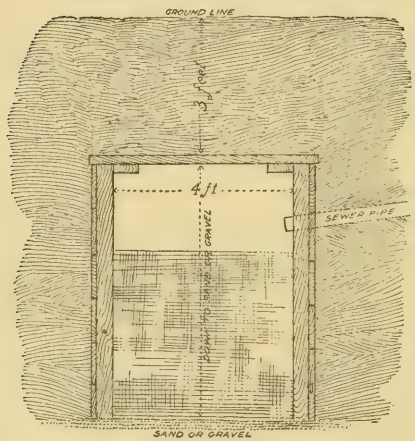
CESSPOOLS

Where there is no general system of public sewerage provided, a cesspool may be made to answer the purpose acceptably under certain conditions. What is written upon

"Mental and moral development is dependent upon the physical health."

this subject should not be interpreted as sanctioning the disgraceful little fever holes sometimes provided under that name. If well built according to directions given in this section, they are a good provision for disposing of all sewage.

WHEN CESSPOOLS ARE ADMISSIBLE



A Practicable Cesspool

A cesspool may be built with safety wherever there is no well, cistern, or cellar in such a location as to be contaminated by it. Usually a cesspool is dug down to gravel or sand, and if there is a well near by, particularly on the lower side, the sewage is likely to find its way to the well, carrying all manner of disease to the household through the water supply. If the cesspool is shallow, there is even possibility that the cistern or the cellar will become contaminated. If well built, and care has been taken to locate it where its contents can not reach the water supply, it will probably be a safe, sanitary arrangement.

HOW TO BUILD THE CESSPOOL

For ordinary family use a cesspool four feet square is large enough. That size is less likely to cave in than a larger one. It should be cased up with the most durable timber available. Redwood or cedar planks are good. Put

Health—thou chiefest good bestowed by Heaven.
—Lucan

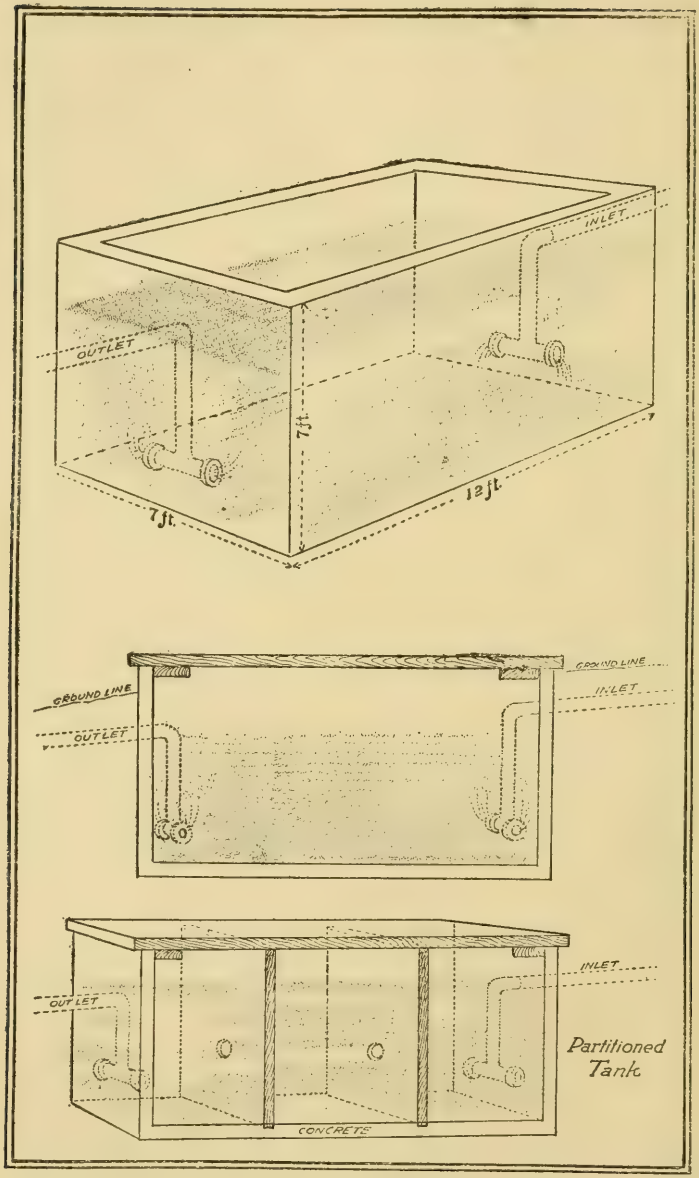
two-by-four-inch joists in the corners perpendicularly, and spike the planks solidly to them, so there will be no danger of the planks becoming disarranged so as to permit the earth to cave in. Begin the casing as soon as the hole is three or four feet deep. The casing will then drop down as fast as the digging proceeds, thus preventing a cave-in. If practicable, dig down to gravel or sand. Its depth should be from twelve to twenty feet. When the work is finished, the top of the casing should be left at least three feet below the surface, and covered over the top with heavy planks. Make the cover solid, so that there will be no danger of its breaking in. Dig a ditch from the outlet of the sewer-pipe at the house to the cesspool, making the depth at the cesspool fully three and a half feet, thus permitting the sewer-pipe to enter the cesspool through the casing, below the cover, as shown in the diagram. In very cold countries this plan will need to be modified as much as necessary to place all pipes below the freezing-point.

CESSPOOL VENTILATORS

The only ventilator necessary for a cesspool built in this way is the iron-pipe ventilator, mentioned above, which is attached to the waste-pipe, below the trap, and extends up through the roof of the building. Wooden ventilators, built, as they often are, directly over the cesspool, are expensive, unnecessary, and unsanitary.

THE SEPTIC TANK

The septic tank is one of the most modern arrangements devised for caring for the sewage of public institutions which are located where there is no city system. If correctly built, it is perfectly sanitary, and is considered a great success by sanitariums, hospitals, and other institutions that have installed them. It is not so expen-



The Septic Tank

"The more perfect our health, the more perfect will be our labor."

sive as to be beyond the reach of any well-to-do family; and it is particularly desirable and practical where the family is large. It is difficult to install the septic tank where the ground is perfectly flat; but as public institutions and large dwelling-houses ought to be, and usually are, located on high ground, this plant can usually be put in without difficulty.

DIRECTIONS FOR BUILDING A SEPTIC TANK

Locate the tank a good distance from the house, at least a hundred yards. Two or three hundred yards is better. It should be well out of the public grounds, where the very knowledge of its existence will not be an offense. It should be where the sewage can flow with a constant fall, and in a straight line, thus avoiding hollows or crooks, either of which may cause trouble.

The size of the tank should depend upon the size of the institution. These specifications are for a tank sufficient to accommodate an institution where there are fifty persons. It is better not to build it smaller than this under any conditions.

Excavate a hole in the ground twelve feet long, seven feet deep, and seven feet wide. In this excavation build a substantial cement tank as large as the excavation will permit, with walls about eight inches thick. The cement, if very good, may be mixed with sand, gravel, and cobblestones, in the proportion of about one to eight. The walls should extend a few inches above the surface of the ground, so as to keep out surface water, and provide a base for the covering. The bottom need not be more than three or four inches thick. To make the tank water-tight, face it inside with cement mixed with sand, equal parts. This work should be done with care, so that the tank will be water-tight, and smooth as a dish.

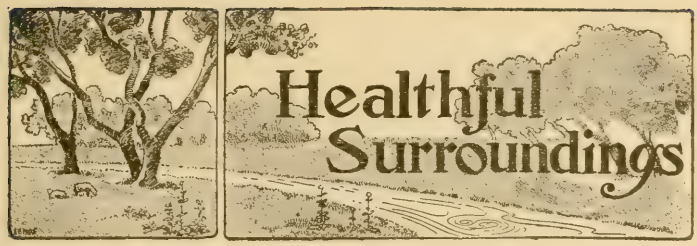
Let the sewer-pipe enter the tank about eighteen inches below the surface, then turn it straight down with an ell. About two feet from the bottom, attach a tee, so that the discharge of sewage will be from the two ends of the pipe toward the sides of the tank, thus avoiding any disturbance either at the top or bottom. The bottom of the tee should be about fourteen inches from the bottom of the tank.

The outlet should be at the opposite end, and should be constructed precisely like the inlet, except that the outlet should be about one inch lower, thus keeping the contents of the tank just below the inlet.

By this arrangement the tank will be kept constantly full. The solids will mostly settle to the bottom or rise to the top. Here myriads of germs will attack every substance, including paper and rags. By this arrangement of the inlet and outlet, the top and bottom of the tank are not disturbed, and the germ destruction goes rapidly and quietly on. Nothing but clear water will escape from the tank. Some arrangement should be made for this water to be turned to account where it will not offend the senses of any one.

If the tank is to be provided for a large institution, it is well to make two cement partitions across it, with openings about half way up, so that the clearest portion of the water may flow through from one section to the other. Where the sewage is abundant, this method is a safeguard against the possibility of solids escaping before they have been disintegrated by the germs. These partitions are not expensive, and they improve the tank even for the small institution or private family.

The tank should be provided with a strong, close-fitting cover, so as to be nearly, if not quite, air tight, and so that no animal can break through into it.



A CLEAN ENVIRONMENT

The environment of a home should be a combination of beauty, fitness, and cleanliness. The character and education of home-makers are indicated quite as much by the back yard as by the front yard. Take a stroll through the barns and stables, through the wood-shed and other outhouses; smell of the drain; look for the rubbish heap, the garbage-box, and the dog kennel; and there you will find a photograph of the thrift and intelligence, or of the carelessness and ignorance, of the home-makers far more distinctly than on the lawns and among the flowers. The front yard is like the gentleman's tie hung on the front; it shows what the home professes to be; but go to the back door to see what it is.

A COMMON ORIGIN OF DISEASE

When disease goes stalking through a home or a neighborhood, the chances are, nine out of ten, that the cause is lurking in an open sewer, a disgraceful cesspool, an open privy vault, or in some other neglected outhouse. The filth from the barn, cesspool, or drain is finding its way into the well or spring, and contaminating the family water supply. In some countries, health officers are required to make frequent inspection of people's premises, and give summary notice to dirty people to "clean up."

THE OUTSIDE TOILET

In many homes it is hardly possible to install sanitary plumbing for lack of a proper water supply. Therefore it is necessary to have a dry-earth closet, disconnected from the house. But where this is necessary, there is

"Health is not quoted in the markets, because it is without price."

no reason why it should be kept so as to be a shame, a nuisance, or a menace to health. The common custom of digging a deep vault beneath the closet is a serious mistake, and is the most common cause of the privy becoming a pest-hole. If a vault has already been dug, it should be filled level with the ground.

Large metal pans or buckets, with a bail and a handle on the side, should be provided, and an abundance of dry earth kept in a box, a quantity of which should be thrown into the receptacles whenever they are used. No water or slop should ever be emptied into these pans. They should be kept as dry and clean as possible, and should be emptied, and the contents buried, at least once or twice a week during the summer months.

Vines and shrubs should never be allowed to grow over the building. A lattice fence may be built to hide the entrance, and vines may be trained to grow over it, but tangles of vines should never be allowed to grow closely around the house. It should be open to the sun and wind, and thus be kept dry and sanitary.

BARNS AND YARDS

Barns and cattle yards should be located at a proper distance from the house, and on lower ground, if possible, so that surface water and drainage from that locality will run away from the house instead of toward it. They should also be on the lee side, so the prevailing wind will blow away offensive odors and dust. But even these precautions will not remedy what is often an extremely unpleasant and unhealthful feature of country homes. The barns should be kept tidy; the yards, dry and clean; manures should be kept where they will not become filthy mud-holes or wallowing-places. Thrift, neatness, order, and sanitary conditions should be maintained.

Certainly this is a duty, not a sin. "Cleanliness is indeed next to godliness."—John Wesley

HEN-HOUSES

The hen-houses and parks should receive special attention, for no spot on the premises is likely to become so offensive and filthy. The houses, coops, roosts, and fences, in fact, every wooden fixture connected with the hen-yard, should be whitewashed frequently, that no hiding-places may be left for lice or other vermin. Frequently the houses and yards should be cleaned and lime scattered freely about. A supply of lime should be kept where the hens can dust themselves in it.

Sometimes the hen-house is located near the dwelling for convenience in throwing waste to the fowls. It is better that the arrangements should be a trifle inconvenient than to have a hen-yard under the very windows, or close beside the lawns and flower gardens, thus turning the recreation grounds into a fowl-yard.

PIG-PENS

The only way to make a pig-pen sanitary is to banish the pigs from the premises, and build a bonfire out of the pig-pen and all of its attachments. Pigs are unfit for food, and no premises can be kept sweet and clean while a pig is around. It is far better not to keep them; but if you do, make their pens as clean and airy as you can, and locate them as far away as the dimensions of the premises will permit.

SLOP-HOLES AND DRAINS

One of the most dangerous, yet, we are sorry to say, the most common, of the nuisances about an ordinary farm-house, is the slop-hole, or drain. Wash-water, dish-water, and all kinds of slop and refuse are thrown out in one spot at the back door. The dirt is washed away until a sink-hole is formed. Weeds and grass grow rank in such places; filthy worms and insects multiply on such

"Health is a great treasure. It is the richest possession that mortal can have."

a feeding ground, and under the summer sun the filth festers and steams, and throws off myriads of disease-producing germs, endangering the household. Frequently such a pest-hole as this is the cause of a neighborhood pestilence, with death and the grave following after. When sickness breaks out in any locality, there should be an immediate investigation of all probable causes, and a remedy should be applied. Do not let such a place develop at your back door, or anywhere else about your premises. Such places should be cleaned out, spaded up, and disinfected by lime and sunshine.

HEAVY GRASS AND WEEDS

Grass and weeds should not be allowed to grow tall and heavy about the house, for they afford a hiding-place for filth, besides revealing the untidy habits of the householder. Cats, chickens, pet rabbits, mice, rats, and birds can crawl away into these tangles and die without being observed until fumes from the rotting mass reveal the gruesome fact. Short, well-kept, grassy lawns, clean gravel walks, and separate, open, well-trimmed flowers are beautiful, and lend an air of wholesome cleanliness to the grounds.

TANGLES AND SHRUBS

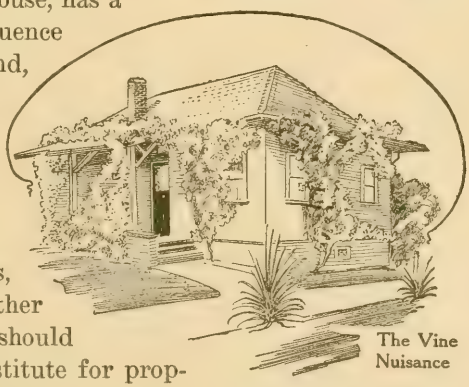
Flowers, shrubbery, and vines should not be allowed to grow wild until they form a tangled mass. They are unsightly and unwholesome, and prove a sort of net or waste-basket for catching rubbish. Better dispense with them altogether, unless they can be cared for so that they may appear neat and attractive.

SHADE TREES

Shade trees and shrubbery too close and dense around a house are unhealthful; for they prevent a free circulation of air, and hinder the rays of the sun from shining

"Health is the greatest of gifts; contentedness, the best riches."

through sufficiently. In consequence of this, a dampness gathers in the house. Especially in wet seasons, sleeping-rooms become damp, and those who sleep in the beds are troubled with rheumatism, neuralgia, and lung complaints, which generally end in consumption. Numerous shade trees cast off many leaves, which, if not immediately removed, will decay, and poison the atmosphere. A yard beautiful with scattering trees, and some shrubbery at a proper distance from the house, has a happy, cheerful influence upon the family, and, if well taken care of, will prove no injury to health.



The Vine Nuisance

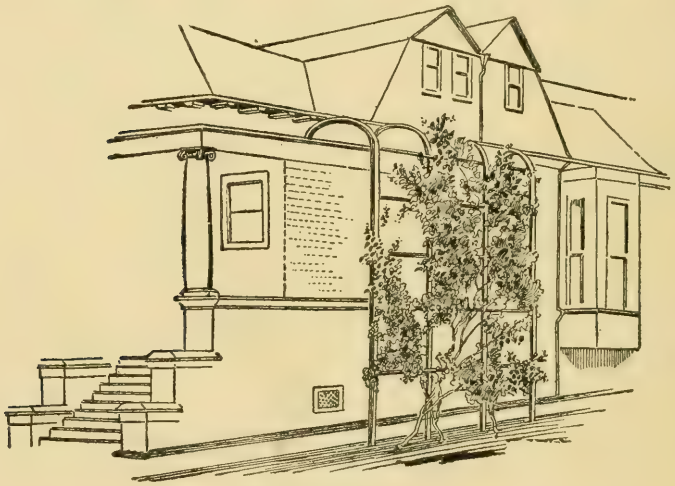
CLIMBING VINES

The verandas, windows, or any other part of the house should not be made a substitute for properly constructed trellises and arbors. Vines climbing over the house may appear beautiful, but they do harm both to the house and to the inmates. Windows are made to let in air and sunlight, but these dense vines shut out both. Verandas in themselves shut out the sunlight quite enough; but when they are laden with shrubbery, they contribute still more to the dampness and gloom inside. Besides, these vines often grow through the joints of the weather-boards and shingles, opening them up to the rain and wind. The constant dampness soon causes decay, and the house must be repaired. Besides, it is quite impossible to keep the immediate surroundings of the house tidy and clean when there is a tangled mass of vine creeping over it.

"Health is the greatest of all possessions, and 'tis a maxim with me, that a hale cobbler is better than a sick king."

A PRACTICAL DEVICE

In southern California, the land of the most wonderful climbing roses in the world, a good lattice or ladder is made, which enables the rose vines to climb about the house without doing injury. As shown in the accompanying cut, a ladder is made as wide as desired. Usually this is placed outside of some walk, running along beside



Well Trained Vines

the house, so as to stand from three to ten feet from the building. Its height depends upon the height of the building. It should not extend above the eaves. The top is bent in and the ends attached firmly to the house. This ladder is filled in with lattice work or wire. It should never extend over a window, for reasons already stated; and the vines should be constantly trained and pruned, that they may not grow against the side of the house, or form masses or tangles on the lattice. An open, clean, well-trained vine is far more beautiful than a veritable thicket or jungle.

For a man's house is his castle.
—Sir Edward Coke

PETS AND THEIR HOMES

Pets may be a great joy to members of the household. They are active, living, beautiful creatures, and afford never-ending, harmless entertainment for the children, and pleasant companionship for all. They are all right in their place, if that place is where it ought to be, and if their homes are kept clean, and the pets so cared for as to be healthy.

Pets allowed to stray about the premises and through the house, without proper care, invite vermin and disease, and present an appearance of general disorder.

TIN CANS

Since many articles of food are put up and sold in tin cans, it is a common sight about shiftless homes to see heaps of these empty cast-aways out by the wood pile, just over the fence, or beside the barn. Some of the cans fill with water, and become a breeding-place for mosquitoes. Other rubbish is added, and the spot becomes filthy and unsightly. Such worthless junk as can not be burned should be buried.

OLD LUMBER

Broken pieces of boards and boxes that "are too good to be burned," accumulate rapidly in the yard unless packed away in orderly shape. Such pieces, if really valuable, should be stored away in a dry place for future use. If neglected, they soon decay and become a hiding-place for pests.

DECAYED FRUIT AND VEGETABLES

Such refuse should be burned or buried instead of being thrown into a fence corner. In fact, everything that can decay, gather filth, or harbor vermin and reptiles,

"No opportunity for stagnant water should be allowed around a dwelling."

should, if valuable, be preserved in a proper place, or, if worthless, be destroyed.

PROVISIONS FOR REFUSE

A convenient-sized can, with a tight cover, should be provided for vegetable trimmings and other refuse. This should be emptied every day and the can cleaned. If nothing is put into this receptacle that will be harmful to the poultry, the contents may be given to them, emptied in a proper place at a safe distance from the house, or burned.

Where no cesspool or public sewerage system is provided, all waste water from the house may be poured around growing fruit trees and shrubs, where cultivation will work the soil, and sunshine will destroy the germs. While this may cause a little extra work, it may save a great deal of trouble which might arise from a back-door nuisance.

NO TIME TO LOSE

'Tis not for man to trifle! Life is brief,
And sin is here.
Our age is but the falling of a leaf,
A dropping tear.
We have no time to sport away the hours,
All must be earnest in a world like ours.

Not many lives, but only one have we,
One, only one!
How sacred should that one life ever be,
That narrow span!
Day after day filled up with blessed toil,
Hour after hour still bringing in new spoil.

—*Dr. Bonar*



BRIGHT WATER

I know a little fairy who lurks within the spring;
She is so pure, she is so true, so sweet the song she sings;
She trips adown the hillside, and glides along the plain;
She is the dearest gem on earth; Bright Water is her name.

I love this little fairy, her charms are ever new;
I know she'll ne'er deceive my heart, she is so pure and true;
She bringeth peace and plenty, and giveth health again;
This sweetest, dearest gift of heaven, Bright Water is her name.

—*Corney Simmonds*

THE VALUE OF PURE WATER

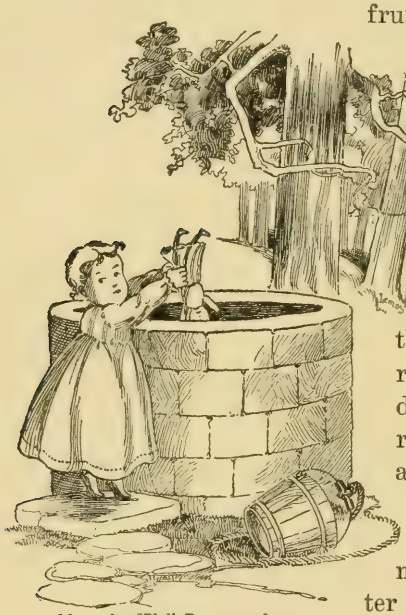
Water is one of the most active and valuable agents in the body. It dissolves the food we eat in the alimentary canal, and carries the solution through its walls into the blood and lymph vessels. It is the carrier which brings the supplies for building up the body. As waste matter forms in the tissues, water is the cleansing agent which flushes them, and carries the waste out of the system by way of the lungs, skin, and kidneys.

It will be evident, therefore, that pure water is the most useful; for, as a solvent it is capable of dissolving and conveying from place to place a certain amount of matter; but if it already has a load of its own in the form of impurities, and mineral substances, its value is lessened, and it may become a source of disease. Pure water is indispensable to life and health.

Contaminated water is one of the most common causes of disease.

DANGERS FROM IMPURE WATER

Dangers from impure water are very commonly known, but are too little appreciated. Papers and magazines frequently publish reports of discoveries and developments which indicate that contaminated water is one of the most fruitful sources of disease. And there is no lack of suggestions and remedies by which the public may protect themselves. The chief lack is on the part of the people. They fail to realize the importance of guarding their own water supply, not realizing that the germs of disease may be lying in wait, ready to break out in open attack.



How the Well Becomes Impure

This lack of concern may often arise from a misconception that clear water is surely pure. While clear water is desirable, its clearness is only partial evidence of its purity. The surest test is analysis, which should always be resorted to when there is any reason for suspicion.

COMMON SOURCES OF WATER CONTAMINATION

1. The most common source of contamination of water in wells is the seepage from barn-yards, cesspools, slop-holes, or privy vaults. This danger varies according to the porosity of the soil, the lay of the land, and the depth of the well.

"Pure water is colorless, tasteless, and odorless."

2. If wells are left uncovered, insects, bugs, worms, vermin, and small animals are very liable to drop in. Babies sometimes make it their chief sport to throw things into the well; and thus the water supply becomes filthy in a short time.

3. Water in cisterns becomes polluted in time by the constant wash of foreign matter from the roofs and gutters, even though the cistern may be protected otherwise by the most approved method.

4. Even beautiful spring water, brought from the hills, may be impure from neglecting its surroundings, and permitting cattle to tread about it and make of it a drinking pool.

5. Public reservoirs are sometimes carelessly left with no high, protecting fence or other shield, to prevent things from being thrown in. Not long ago sickness broke out in a certain city, and the health officers wisely ordered that the reservoir be drained. Among the miscellaneous rubbish found in the bottom were two tiny, decaying babies, and thirteen cats and dogs.

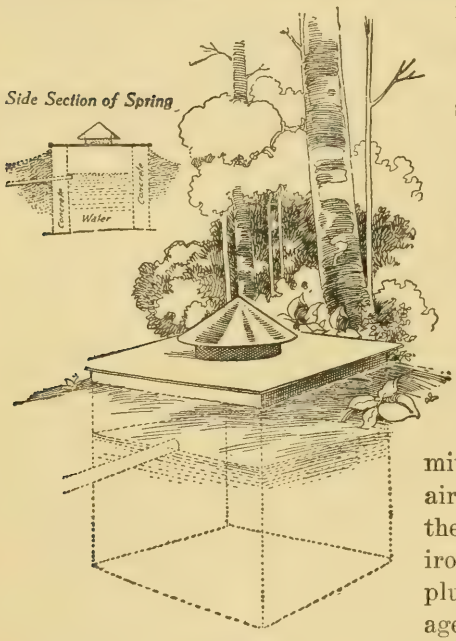
Many years ago a gentleman called at a small log house for a drink of water. The resourceful but unscrupulous housewife handed him a dipperful, into which she dropped a liberal supply of salt, explaining, as she did so, that the salt seemed to improve the smell and taste of the water—which certainly needed improvement. However, after a few days the salt refused to have the desired effect, and it became evident that something more radical must be done. As a last resort, they decided to clean the well. Their labor was rewarded by unearthing two or three dead frogs and a putrid rabbit, the hair of which slipped off the slimy carcass upon the slightest touch.

The wonder is that there was any one left to tell the tale.

Clear water is not always pure. **Analysis is the surest test.**

THE SPRING

The most desirable water supply is obtained from a flowing spring of soft, sweet water. The man who is so fortunate as to have such a spring as this should make it available for family use.



A Protected Spring

First, the spring should be stoned, bricked, or cemented, and the ground raised high enough around it so that surface-water will run away. Make a good cover of wood or galvanized iron, with a screen ventilator in the top, thus keeping out insects and small animals, but admitting a free circulation of air. Conduct the water to the house through galvanized iron pipes. Put in sanitary plumbing and proper sewerage, and you have a treasure worth many times its cost.

THE WELL—ITS LOCATION

Do not dig a well in the cellar, nor in the barn-yard, nor within a hundred feet of a barn-yard or cesspool; and even then it should be on higher ground than either, so that natural drainage will be away from it. Some men have sufficient foresight to dig the well first, and then locate other conveniences afterward, which enables them more easily to protect the well from impurities

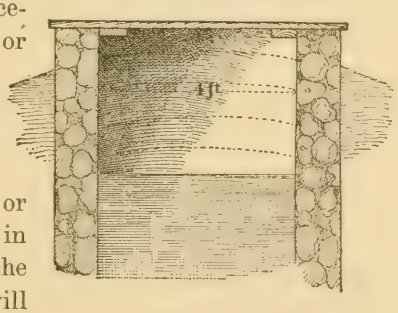
Water not known to be pure should be boiled and filtered before using.

DRIVEN WELLS

It is of great importance that driven wells be fitted securely at the surface. A good curbing may be made of cement. Dig away the soil several inches deep and at least three feet square around the casing at the surface, and fill in with cement, raising the cement curb several inches above the ground, to keep out surface water. Then fit a close cap over the top of the casing around the delivery pipe, to prevent things from falling in. Such wells are hard to clean, and need to be carefully protected.

CASING

The best casing for a well is cement and cobblestones. A proportion of one part of cement to six or eight of gravel or sand is rich enough for this purpose. The casing should be circular, and at least three feet in diameter inside. Three feet and a half or four feet is better. Work in plenty of cobblestones with the cement. The whole mass will become like rock.



A Permanent Casing

Though the expense may be a little extra at first, it is not great in this day of cheap cement; and a well cased up in this way is a permanent job. The casing should extend a foot, at least, above the surrounding surface, so as to admit of a little grading around the well. Wells that are already stoned up ought to be finished at the top with cement and stone, which will keep out vermin, and prevent cave-ins at the surface.

Whether the water is drawn by windmill and ordinary

Taxpayers should know the quality of the public water supply.

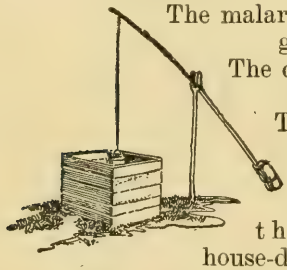
pump, or bucket, the well should be closed with a close-fitting, ventilated cover.

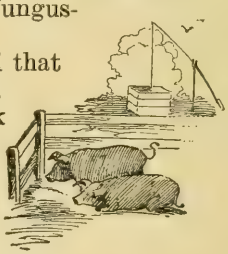
If the water is drawn with a bucket, do not let your poetic fancy incline you to the belief that "an old oaken bucket, a moss-covered bucket," is the best kind. That kind of bucket is better in poetry than in practice. A galvanized iron bucket is more easily kept clean.

THE OLD OAKEN BUCKET

(As revised and edited by a sanitarian.)

With what anguish of mind I remember my childhood,
Recalled in the light of a knowledge since gained:
The malarious farm, the wet, fungus-grown wild-wood;
The chills then contracted that since have remained;
The scum-covered duck pond, the pig-sty close by it;
The ditch where the sour-smelling house-drainings fell;
The damp, shaded dwelling, the foul barn-yard by it,—
But worse than all else was that terrible well,—
And the old oaken bucket, the mold-crusted bucket,
The moss-covered bucket that hung in the well.





Just think of it! Moss on the vessel that lifted
The water I drank in the days called to mind,
Ere I knew what professors and scientists gifted
In the water of wells by analysis find.
The rotting wood-fiber, the oxide of iron,
The alga, the frog of unnatural size,
The water, impure as the verses of Byron,
Are things I remember with tears in my eyes.





Springs, wells, and cisterns should be proof against drainage, seepage, insects, and rubbish.



And to tell the sad truth,—though I shudder to think it,—
I considered that water uncommonly good,
And often at noon, when I went there to drink it,
I enjoyed it as much as I now enjoy food.
How ardent I seized it with hands that were grimy,
And quick to the mud-covered bottom it fell;
Then soon with its nitrates, and nitrites, and slimy
With matter organic, it rose from the well.



Oh! had I but realized, in time to avoid them,
The dangers that lurked in that pestilent draught,
I'd have tested for organic germs, and destroyed them
With potassic permanganate ere I had quaffed;
Or, perchance, I'd have boiled it and afterward strained it
Through filters of gravel and charcoal combined,
Or, after distilling, condensed and regained it
In potable form, with its filth left behind.



—*"Sunbeams of Health and Temperance"*

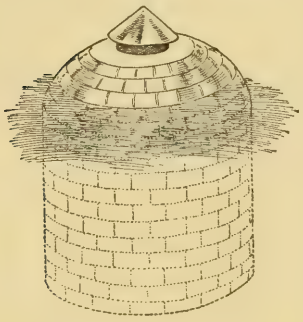
RAIN-WATER

If the general supply is hard, it is of special importance that some provision be made for catching rain-water, and conserving it in a pure condition. In many localities, and even in whole countries, the people are dependent entirely upon rain-water. Under these conditions the method of catching and preserving the water pure is of great importance. These methods will apply generally, it being always remembered that in cold countries it will be necessary to make provision against freezing by proper protection of pipes and tanks.

Cisterns and tanks should be covered, ventilated, and cleaned often.

CISTERN

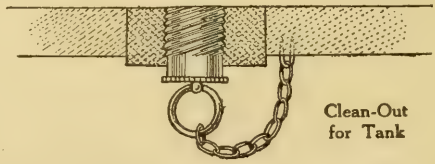
The cistern should never be placed in the cellar, for it makes the house damp underneath, and leakage or accident is likely to flood the cellar. It should be built of cement, or cement and bricks, in the ground outside the house. It is better to have two than one. Two with the same capacity as one, can be built with only a little more expense, and they can be used alternately, one being used while the other is being emptied and cleaned. They should be domed over the top, and the manhole fitted with a galvanized iron cover, having a screen ventilator to keep out dirt and insects.



Inclosed and Ventilated

TANKS

Open wooden tubs are not good receptacles in which to store water. Dust and dirt are constantly dropping into them, and they make a convenient breeding-place for mosquitoes. If wood is used at all, it should be carefully covered and ventilated. Galvanized iron is the best material for tanks. All tanks should be covered and fitted with a screen ventilator.



Clean-Out for Tank

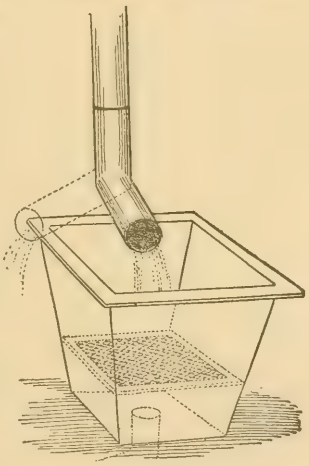
Whether the tank is made of wood or iron, it should have a free outlet in the bottom, fitted with a screw plug. This fitting should be flush with the bottom on the inside so that all the water can be emptied readily when cleaning the tank.

Pure water is insipid to people who have formed the filthy-water habit.

ROOF AND CONDUCTORS

If the family is dependent entirely upon rain-water, or if it is to be used largely for domestic purposes, there should be special precaution in providing a clean catching surface. The roof, guttering, and down-pipes should all be of galvanized iron. Near the ground where the down-pipe connects with the pipe to the cistern, put in a hopper, screened with fine wire. This will catch leaves and other coarse substances that wash from the roof or gutter.

Make an adjustable joint in the down-pipe just above the hopper, so that the water can be turned aside, and allowed to flow on the ground during the first few minutes after a rain-storm begins; thus the washings of the roof and gutter are not carried into the cistern. These few precautions are better than most cistern filters, for they soon become clogged, and all the water must strain through the filthy mass.



An Adjustable Down-Pipe

Filters which can be frequently renewed are very good. Elevated tanks which furnish the entire supply of water for the home should be built in pairs with fittings, so that one can be used while the other is being emptied and cleaned.

WATER SUPPLY BY MECHANICAL POWER

It is not within the range of the purpose of this book to give information concerning installing various water plants. The work should always be done by one who un-

"Rain-water is Nature's dish-water." It should be filtered if used for cooking or drinking.

derstands the laws of hydrostatics and mechanics, so as to insure a first-class plant, giving the best results with the least expense. If farmers and ranchmen could appreciate the convenience and sanitary advantages of a good water supply, with pressure, we would see more windmills and small gasoline engines and tanks, and more homes fitted with modern plumbing and sewerage. Under normal conditions a plant of this kind can be installed for from five hundred to one thousand dollars; its worth is beyond estimate. Frequently it is feasible for several householders to form a water company, and put in a plant sufficient to supply all.

DISTILLING AND BOILING

Distilled water is almost absolutely pure. In some localities distilled water is sold in bottles at a nominal price. Where the general supply is impure, and the bottled goods are known to be genuine, it is well to depend upon that supply.

The chief difficulty with distilled water is its flat taste. This is largely because the taste is unusual. This is no proof that the water is not good. Little "fresh-air" children from New York City often refuse at first to drink the beautiful spring water in the mountains because it has less "taste" than the water from the New York mains. Distilled water may be made more pleasant to the taste by pouring from one vessel to another.

If any doubt is entertained as to the purity of water, it should be boiled before using.



A FINE ART

Furnishing the home is as much an art as is painting or sculpture; for, added to the painter's exquisite taste and skill in combining colors harmoniously, and to the sculptor's skill in producing the desired effect from form, proportion, and expression, the housewife must also have a good knowledge of sanitary laws, so that, while making the home comfortable and beautiful, she will provide nothing that may prove an injury to the health of her family.

CARPETS

It is a source of satisfaction to sanitary reformers that custom is rapidly drifting toward polished, oiled, stained, and painted floors, with a few well-chosen rugs as a substitute for heavy wool carpets, nailed down, and covering every inch of floor space. Loosely woven wool or cotton carpets, or flimsy matting, which allow the dust to sift through, are extremely unsanitary; and this is particularly true when they cover the entire floor, and are taken up and cleaned only once or twice a year.

In many homes of wealth and refinement these old-fashioned, large carpets are banished. The floors are polished, oiled, or painted, and a few rugs are used where they will be the most artistic and comfortable. This is the ideal way to finish floors. It lightens the housekeeper's duties, excludes the musty smell of the old carpets, and gives an air of cleanliness to the house. It is to be hoped that the time will soon come when this will be considered the only way.

Windows are made to let in the light and air, but heavy draperies shut out both.

If carpets are desired, they should be squares of such a size as to leave a border of bare floor from one to three feet wide all around. The closely woven, best qualities are most sanitary, for they do not harbor dirt and vermin. Body-brussels is serviceable, and the cheapest in the end.

MATTING

Matting is not a good floor covering, unless woven in squares so as to be readily taken up and cleaned. Strips of matting nailed or stapled down are difficult to take up, and are, therefore, often left down until practically worn out. They soon become a dirty mass, and an incubator for germs and vermin.

LINOLEUM

As a sanitary floor covering, linoleum is good. Perhaps nothing is better for halls and stair treads. The best kitchen floor is made of polished hardwood, well filled with oil, so as not to absorb the water. If the floors are of soft wood, linoleum should be used in the kitchen, pantry, and bath-room. In cold climates, linoleum is cold for the feet unless the floors are well warmed by furnace heat. Rugs placed wherever much standing is necessary will remedy this difficulty considerably.

SHADES AND CURTAINS

Both shades and curtains are considered necessary for nearly all windows. They are all right if their proper use is not abused. The chief object of a shade should be to give privacy to the room when desired, by shutting out the public gaze. Shades are usually an injury to the extent that they are made to exclude the sunlight. Lace or muslin curtains are beautiful ornaments, and can scarcely be dispensed with, though they are hardly sanitary; for

A little cash spent wisely is better than riches spent ignorantly.

unless kept with the greatest care, they become more or less dusty.

Never tack the curtains to a board, and then nail the board to the window casing. Such a permanent fixture becomes a shelf for dust, and the curtains can not be readily cleaned.

Hang the curtains from adjustable rods, and avoid making heavy flounces and frills. Be content with the beauty of simplicity, for curtains catch quite enough dust even at the best.

PLAIN FURNITURE

The furniture of the house should be plain and substantial. Well-polished, smooth surfaces can be kept clean and bright, and they are the most elegant; elaborate carvings are nearly always dusty, and soon look old. In every feature of house-furnishing, care should be taken against providing natural hiding-places for germs and filth. Many good housekeepers pride themselves upon their apparently well-kept homes, but are themselves shocked on house-cleaning days, once or twice a year, when they actually discover what has been accumulating.

This important subject will be treated more fully under general housekeeping. Suffice in this connection to say that the furnishings should be such as to contribute to the ease of daily house cleaning.

While we are unwilling to condemn, altogether, a reasonable amount of decorations and ornaments for a room, this laudable desire to beautify and make attractive is often carried to an extreme, which is both unsightly and unsanitary. A profusion of small ornaments and decorations, if properly cared for, add greatly to a housekeeper's work. If she is a busy woman, as most housewives are,

Many ornaments are dust catchers, and dust catchers are not ornamental.

she will find herself quite unable to keep the rooms clean with a jungle of useless ornaments in the way.

USELESS ORNAMENTS

"Many of us," says Ada Cox, in *Good Health,* "remember the age of the lamp mat and the tidy. Some of us perhaps set our first stitches in these extremely useful and ornamental articles. Many of us pounded brass, and put our best brain force and best hours into the work, and our homes are filled with sconces and traps and plaques mounted on red or blue plush. These things will not burn or be destroyed, and they clutter our storerooms or help swell a dump heap that adorns some otherwise attractive shade beside the highway.

"Artists, sometimes, in order to display the beauty of color or weave of a fabric, toss it across an easel or over the corner of a frame. Home-makers caught the fever, and for a time we had pieces of silk and linen, and even cotton, hitched onto every available projection,—mirror and picture-frames, chair posts, table corners, shelves, bed headboards,—no articles were neglected; all were draped. A popular drapery was a piece of stiff bolting cloth with colored silk fringe sewed across the ends, and a string tied about its middle. How gracefully it draped! one end sprawling in one direction, the other carefully spread out to show its lovingly and patiently executed decoration in oil.

"Many of us dabble in water-colors or paint china. It is delightful work, but how much more attractive does it make the home? The working is a pleasure; the products are soon cumbersome. The money spent for material and instructions, if put into one or two good pictures and a few pieces of good and artistic china, would furnish

Economy comes too late when the coffers are empty.
—Seneca

continual pleasure to ourselves and to nearly all who enter our homes."

NOT TOO RADICAL

And yet perhaps some of us find real delight in these things. Maybe some of our children manifest talent for painting or decorating. It may be to them a wonderful relaxation,—an untold pleasure. Perhaps Jane or William may be kept away from some objectionable place of amusement for many an evening, painting a piece of china for mother, or making some "foolish" bit of drapery for a friend. Let us not in our righteous indignation against "dust catchers" and foolish frippery, make the greater mistake of nipping in the bud the God-given talent, or the kindly deed. Somebody's fingers must make the "one or two pictures" mentioned above, and the "good and artistic china pieces" must needs have been created by some dainty hand.

UPHOLSTERED FURNITURE

Heavy, upholstered furniture is so comfortable that a home hardly seems well-furnished without it, and, although it is not the most sanitary, probably most people will insist upon having more or less of it. The less there is of it in the house, the better it will be for the inmates. Can we imagine anything more filthy than an ancient plush or velvet-covered lounge, the pile, the buttons, and every crevice of which have been gathering up dust and germs for years? Frequently the upholstering of the couch and heavy chairs is built up of excelsior and waste rubbish of various kinds, and then the whole mass is enclosed so that germs may accumulate without molestation, and vermin may make it a safe retreat. Any housekeeper who has finally mustered up the moral courage to destroy

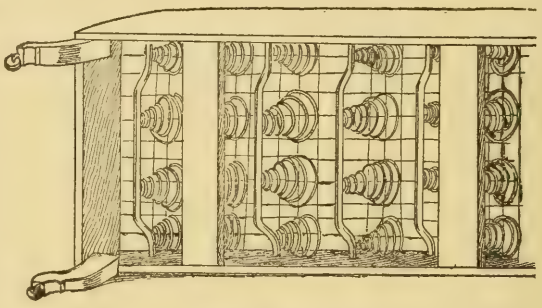
Heavy carpets and upholstered furniture make hiding-places for unwelcome visitors.

an old worn-out lounge or excelsior bed of this kind, can appreciate the statement that such furnishings are unwholesome, and should be banished from the home.

We give a few suggestions out of many that might be made on this important subject:—

Leather upholstering is the best, for the surface is smooth and dust can not sift through.

Upholstered furniture should be built upon a strong, open frame of wood or iron with steel springs, and all the work should be open from beneath, so as to furnish no hiding-place for dirt, germs, or insects. First-class furniture is largely being built that way; and if no other kind were purchased, the questionable methods of manufacture would be discontinued. It is only our foolish idea that cheap things are a bargain that encourages the sale of unsanitary goods.



Sanitary Upholstering

There are many kinds of easy chairs which are sanitary; it is not necessary to buy heavy, upholstered rockers, though they may have charms for some who do not know their bad qualities. What a feeling of disgust and repugnance comes over one when compelled to sit down in a plush car-seat which has been gathering filth for months from the unknown. The feelings of a stranger are much the same when asked to sit down in an old plush chair which has never been cleaned, simply because it can not be cleaned.

When selecting furniture, study health, fitness, cleanliness, simplicity, and economy.

Solid oak chairs with, or without, a leather bottom are comfortable. Wicker chairs are light, comfortable, and artistic. Veneered, bentwood, and cane-seated chairs are also comfortable; and all of these are sanitary, easy to move about, and in every way are preferable to upholstered goods.

IRON BEDS AND SPRINGS

Iron bedsteads are being so rapidly substituted for the old wooden ones that it is hardly necessary to speak of the points in their favor. We learn with much satisfaction, from dealers in furniture, that wooden bedsteads can hardly be sold at any price. Second-hand furniture dealers can now buy wooden chamber sets for what the dressers are worth, and they use the bedsteads for kindling wood. On this point, at least, custom is taking the direction of good sense and sanitation.

MATTRESSES

Mattresses made from vegetable products are more sanitary than those made from animal products. Many families are unable to have anything more luxurious than a straw or husk bed. If these are changed and cleaned frequently, they are very good. Cotton and felt are the best materials used, and make a good bed, comfortable enough for a king. Of animal products, hair is the best. Wool is not good for mattresses, unless the cleanest, best qualities are used.

FEATHER BEDS

Feather beds are unfit for use. This statement will jar tremendously upon the nerves and opinions of some good old housekeeper who has feather beds and considers them a part of the necessary equipment of housekeeping. One was made by herself when she began housekeeping,

These trifles will lead to serious mischief.
—Horace

another by her mother, and a third by her grandmother. These are treasures, and it is ruthless to trespass upon sentiment in behalf of the good qualities of the old feather bed. But as we want to help housekeepers in making clean, sweet homes, they must bear with us while we modestly whisper the facts.

These beds are continually undergoing a slow process of decomposition. This is scientifically true, and it will be evident to any one who will examine the contents of an old feather bed.

Few substances are equal to feathers as absorbents of waste matter thrown off from the body during sleep.

This accumulation of fetid matter, together with the natural disintegration of the feathers, make the bed more and more vile as the years go by, until it constantly throws off poisonous gases, injurious to health.

BED COVERINGS

The bed coverings should be light and warm. Blankets are more practical than heavy quilts and comforters. Light blankets are preferable to heavy ones, as they can be more easily washed, and the same weight in two light blankets is warmer and more comfortable than in one. If comfortables are used, they should be placed over the blankets instead of next to the sheet. Blankets or a light top mattress should be placed over the mattress as a protection; by this means the clothing nearest the body, which absorbs the most of the impurities thrown off during the night, can be frequently washed.

SECTION TWO

General Housekeeping

Housekeeper's Wisdom

Adopt the best methods.

In all your work be systematic.

Have a time and a place for everything.

Have all the conveniences about the house you can afford.

Never live beyond your means.

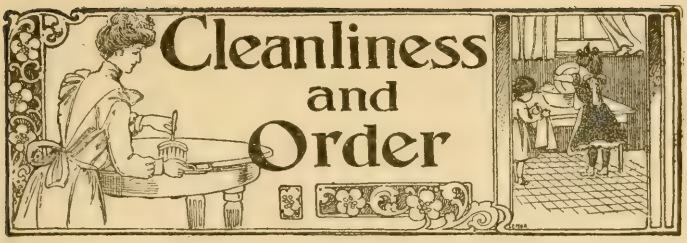
Economy and thrift bring independence and luxury.

Fresh air and sunshine are cheaper than doctor's bills.

Study your house-keeping as you would any other business.

Make of yourself a ray of sunshine under all circumstances.

Remember that a happy home is the only paradise on earth.



NOT WORTH WHILE

It isn't worth while to fret, dear,
To walk as behind a hearse;
No matter how vexing things may be,
They easily might be worse;
And the time you spend complaining
And groaning about the load,
Would be better given to going on
And pressing along the road.

I've trodden the hill myself, dear—
'Tis the tripping tongue can preach,
But though silence is sometimes golden, child,
As oft there is grace in speech—
And I see, from my higher level,
'Tis less the path than the pace
That wearies the back, and dims the eye,
And writes the lines on the face.

There are vexing cares enough, dear,
And to spare, when all is told;
And love must mourn its losses,
And the cheek's soft bloom grow old;
But the spell of the craven spirit
Turns blessing into curse,
While the bold heart meets the trouble
That easily might be worse.

So smile at each disaster,
That will presently waste away,
And believe a bright to-morrow
Will follow the dark to-day.
There's nothing gained by fretting;
Gather your strength anew,
And step by step go onward, dear,
Let the skies be gray or blue.

—*Mrs. Sangster*

Cleanliness and thrift go hand in hand.

CLEANLINESS

Cleanliness is of first importance in housekeeping. It should be considered before order. "If we can not have both," says Ada Cox, in *Good Health*, "let us dispense with the latter. Give me one bare room with a floor that I can scrub, and walls which, if they must be papered to hold the plastering, I can cover with clean newspapers,— a room which I can have full of God's free, fresh air and sunshine, and a few simple articles placed as I wish them, rather than a full suite with sumptuous upholstering and silk hangings, full of germs which every touch sends flying, and only air that has long since forgotten that it was God-made, so many times has it been man-made over."



A wholesome Example

Cleanliness is the environment of health. Like sunshine, it is the natural enemy of germs and pests. Cleanliness gives character to the home and to the nation, and places a healthful mold upon succeeding generations.

Want of care does us more damage than want of knowledge.—Benjamin Franklin

Mother's cleanliness is, and ought to be, quoted, talked about, and emulated by her daughters. The clean, sanded floors of Holland are praised the world around, and have contributed a wholesome influence upon housekeepers. Indeed, the homes of America are sweeter and cleaner to-day from the influence of the oft-repeated story of the Dutch housewives of Manhattan Island scrubbing their door-steps, nearly three centuries ago.



Thoughtless and Shiftless

ORDER

As already stated in a previous paragraph, order should not be made such an inflexible fad as to crowd out good sense and variations in the housework; yet it is wonderful how much easier the work of the house can be done if it is carefully planned beforehand. There are thousands of weary home toilers who look ahead to each coming day with dread, simply because they see a great mass of work before them, but are unable to systematize it so that every step shall count, and count in the right direction. These wives and mothers are rapidly working themselves into nervous wrecks. Little by little they are becoming impatient and irritable, and the daily routine of cares and

Order is heaven's first law.
—Milton

work becomes a burden, grievous to be borne, when a little careful planning and systematizing each day would change this drudgery into joyous living and healthful toil. Drop in upon them any hour of the day, and the house is in confusion, and they seem powerless to keep it in any other condition.



True Joy in Labor

THE RIGHT ORDER

Not only should the work be planned systematically; it should be arranged in the right order. There is a best time for doing every item of housework. Ideas may differ widely upon this point. Housekeepers wish to do their work in a variety of ways; and conditions and means vary so widely that this is necessary; but in every home there is a best time for everything, and much toil and worry will be saved if the arrangement of all the daily duties is given careful study.

HINTS ON THE DAILY PROGRAM

Rise early; take a vigorous hand bath; comb your hair properly; dress your neck neatly; put on a large work apron and a flower or bow in your hair. You can get a better breakfast if you are tidy enough to be conscious of a feeling of self-respect. Begin the day right. Let your first appearance to the other members of your family be such as to point the way to a bright, glad day.

If possible, put your room to air before leaving it;

A cheerful face, tidy dress, and breakfast on time are the morning indexes of a good day.

if not, do so at the earliest opportunity. Teach the children to do likewise, that all the beds may be well aired when the time comes to do the bedroom work.

It may be necessary to light the fire and "put the kettle on" before completing your toilet or putting your room to air. In either case, plan to have breakfast on time; for a late breakfast often means nervousness, unpleasant words, and a rush all day, trying to catch up.



"Breakfast Is Served"

Special lines of work, which do not come daily, should be planned the day before, thus giving opportunity to make any needed preparations. The usual routine can be cut short on such days, so the work may not be unreasonably heavy.

In some homes the family can gather for worship most conveniently before breakfast, but generally the mother can not give this privilege her undivided attention at that time, her preparations for breakfast being still in progress. In the majority of cases, therefore, it is found most convenient to have worship after the morning meal. Let no conditions or circumstances tempt you to omit the hour of prayer. It is the key of the arch in the opening gateway of the day.

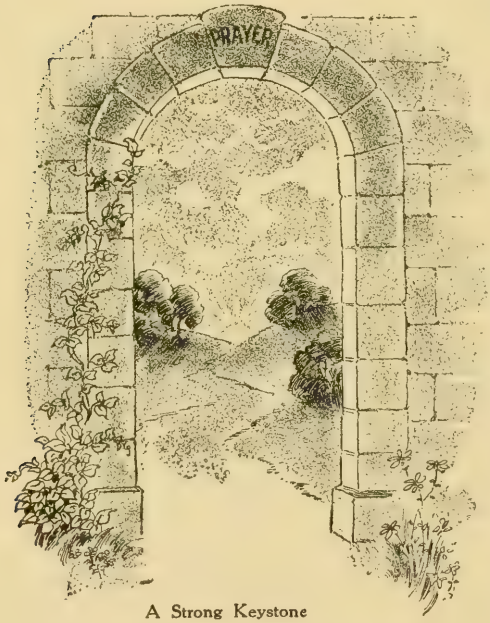
O strong, upwelling prayers of faith,
From inmost founts of life ye start,—
The spirit's pulse, the vital breath
Of soul and heart.

Prayer is the key of the arch in the opening gateway of the day.

From pastoral toil, from traffic's din,
Alone, in crowds, at home, abroad,
Unheard of man, ye enter in
The ear of God.

—*Whittier*

After family worship, the first work is to remove the food from the table. Preserve in clean dishes everything that is worth saving, and dispose of the refuse by any sanitary means.



A Strong Keystone

After gathering the dirty dishes, ready to wash, turn your attention for a few minutes to the living-room and the dining-room. Tidy the rooms and put everything in order so that early callers may be received without embarrassment or confusion.

Then should come the kitchen work,—the dish washing, sweeping, and the general cleaning up necessary to make the kitchen as clean and sweet as any room in the house. In connection with the kitchen work, the pantry, bath-room, toilet, and back verandas should receive the necessary attention.

Heavy duties are made light by well-laid plans and systematic work.

If the bedrooms have been properly opened up and aired, as already suggested, it is now time to make the beds and put the rooms in order.

Preparations for dinner should be begun early, so as to avoid a general rush or awkward delay in serving dinner.

As far as possible, it is well to have all the general housework done before dinner, thus leaving the afternoon comparatively free for special features, like sewing, shopping, or making calls. It is indeed a privilege to have a large part of the afternoon for special duties, study, recreation, and rest. Many tired housekeepers, who are certain that such luxuries are quite beyond their reach, could make them possible by thorough system and energy.

After dinner wash the dishes, do a little general cleaning up, change your dress, and for two or three hours do what you please.

Get ready for the home-coming of the men-folk. They have been brushing up against the world all day, will come home tired from the struggle, and you should have all the heavy housework out of the way, so that you may be able to turn your attention to the evening joys and recreations, of which you should be the queen—the husband's companion and joy, and the children's guide and umpire.

Make the supper light and simple—something easily prepared, and easily cleared away.

Retire early. From nine to five or from ten to six is none too much time for sleep. The Australian rule is good, "Eight hours for work, eight hours for sleep, and eight hours for meals, study, and recreation."

IN PRAISE OF ORDER

Order is a lovely nymph, the child of Beauty and Wisdom; her attendants are Comfort, Neatness, and Ac-

Let everything be done decently and in order.
—Bible

tivity; her abode is the valley of happiness; she is always found when she is sought for, and never appears so lovely as when contrasted with her ugly opponent, Disorder. —*Dr. Johnson*

Well-ordered stones make architecture; well-ordered social regulations make a constitution and a police; well-ordered ideas make good logic; well-ordered words make good writing; well-ordered imaginations and emotions make good poetry; well-ordered facts make science. Disorder, on the other hand, makes nothing at all, but unmakes everything. Stones in disorder produce ruins; an ill-ordered social condition is in decline, revolution, and anarchy; ill-ordered ideas are absurdity; ill-ordered words are neither sense nor grammar; ill-ordered imaginations and emotions are madness; ill-ordered facts are chaos.—*Professor Blackie*

"Order is the sanity of the mind, the health of the body, the peace of the city, the security of the state."

Order is heaven's first law—a glorious law,
Seen in those pure and beauteous isles of light,
That come and go, as circling months fulfil
Their high behest. Nor less on earth discerned
'Mid rocks snow-clad, or wastes of herbless sand,
Throughout all climes, beneath all varying skies,
Fixing for e'en the smallest flower that blooms
Its place of growth.

—*Milton*



DUST

The battle with dust is a constant warfare. The air is never wholly free from it. In a room where one may be quite unconscious of its presence, it may be clearly seen by darkening the room and allowing a ray of light to penetrate the darkness through a small opening. Dust generally contains bacteria, and yeast, and mold spores, which do not grow and multiply while the dust is dry and at rest; but when the dust is stirred up and sent floating through the house, the germs find warm, moist lodging-places, where they develop rapidly and do harm.

As the housewife becomes intelligent regarding the dangers to which the inmates of the home are exposed by wrong methods of handling dust, she will learn a score of better ways to prevent its accumulation, and to gather it up and dispose of it in sanitary ways.

Dust or ashes should never be thrown out into the yard, where the wind will pick up the tiny particles and sweep them back into the house. Dust should be burned. Do not store it in or near the house.

In building and furnishing the house, avoid, wherever possible, projecting surfaces, unnecessary ornaments, heavily upholstered furniture, large carpets, open matting, and every such natural hiding-place for dust.

Permit dust to lie quietly where it is until it can be properly gathered up and disposed of. Do not stir it up and simply change its resting-place, for in this way the dust is kept poised in the air, where it will do more harm than on the furniture. The germs that are inhaled are most likely to breed disease.

"The best ways are commonly the easiest ways, and those that give most comfort to the household."

Never sweep and dust in the dining-room just before meals. This work should be done soon after meals, so as to give the longest time possible for the dust to settle.

Proper care of dust is of the greatest importance when there is contagious disease in the house.

SWEEPING

When the dangers to which a family is subjected by floating dust are fully realized, every reasonable means will be employed to gather up the dust where it is, with the least possible commotion.

There is nothing in housekeeping which will so quickly and accurately show the intelligence and neatness of the housekeeper as sweeping. When a woman, armed with a broom and duster, decides that "the dust will get a stirring up in that room for once," and by every possible commotion with her weapons loads the air with pestiferous filth, even the household cat has enough sense to clear out.



The Right Way

Sweeping should be undertaken systematically and intelligently. When the room has been prepared for sweeping, begin in one corner and sweep toward the center. Clean the corners with a whisk broom if necessary. Sweep with a short, light stroke, working carefully so as not to raise the dust, and by drawing instead of pushing the broom. "Sweep down and on, not up and out."

"Know-how is a great labor-saving invention on which there is no patent."

A DAMP BROOM

Dampen the broom before sweeping. It should not be so wet as to leave streaks on the floor or spots on the carpet. Rinse the broom frequently under a faucet or in a bucket of water, and if you have never tried it before, you will be surprised to see the amount of dust that is gathered up in this way.



The Wrong Way

Dampening the broom with gasoline, when sweeping a carpet, is preferred by some, as it cleanses and brightens the carpet. This must not be done in a room where there is a lighted lamp or fire of any kind, as gasoline is highly explosive. It is not best to use gasoline for such purposes when something else will do as well.

WET PAPER

Tear old newspapers into small pieces, wet thoroughly, and scatter over the floor or carpet before sweeping; they will collect the dust and keep it from rising.

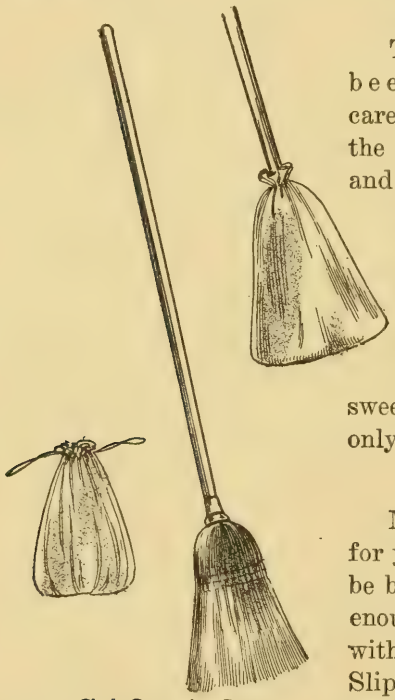
As these scraps of paper are usually wanted at a busy hour of the day, they may be torn up at a more convenient time and put away in a paper bag, ready for use. This is good "busy" work for the children.

Wiping the carpet carefully with a clean mop, wrung from warm water, into which is put a handful of salt and a few drops of kerosene or ammonia, is an excellent method. It will brighten the carpet and destroy insects.

Some brooms scatter dust, and others gather it.

SOOT SPOTS

If there are spots of soot on the carpet, these can be removed by covering them well with salt, and then sweeping lightly.



Cloth Cover for Broom

CARPET-SWEEPERS

The carpet-sweeper has been so improved that by careful use it will gather up the dust and dirt from rugs and carpets without permitting much of it to rise. It is good for superficial work, but will not take the place of frequent, thorough sweeping with the broom. The carpet-sweeper will do good work only when kept clean.

BROOM COVERS

Make cotton flannel covers for your broom. They should be bag-shaped, and just large enough to cover the brush, with draw strings at the top. Slip one of these covers on over the broom, and, using it as a dry mop, wipe up the dust from the painted floors and linoleum. This method is especially good for sweeping the veranda, and saves an immense amount of work in mopping and dusting. Nothing is better than this for dusting the wall and sweeping down cobwebs. These covers can easily be slipped off the broom and washed. They should be kept clean, as dusting can not be properly done with

"He that blows in the dust fills his own eyes."

a dirty cloth. Some prefer these made with a ruffle on the bottom for catching dust.

SALT FOR CLEANING CARPETS

A closely woven carpet may be well cleaned by sprinkling it with salt, and sweeping thoroughly with a broom. The salt gathers the dust, prevents it from rising, and is a good cleanser. Medium coarse salt should be used for this, not the fine table salt.



The Right Way

Bran or corn-meal is sometimes recommended for cleaning a floor or carpet, but it often proves unsatisfactory, on account of the fine meal which remains, and attracts vermin.

DUSTING

Make several large dust cloths from cheese-cloth or other soft material. Provide enough so you can always have a clean one. Feather dusters are a nuisance; instead of removing it, they stir up the dust —the very thing that should be avoided. Allow the dust time to settle after sweeping, then, with your dust cloth, go over each article of furniture, not forgetting the bric-a-brac, the plate-rail, the mantel, and the rungs of the chairs. Do not shake the duster inside of the house.



The Wrong Way

"Care preserves what industry gains."

What is the use of sweeping and dusting if the dust is to be scattered again? For dusting all furniture that is not polished, dampen the cloth with water or gasoline. To dampen does not mean to wet the cloth—a mistake often made. A damp cloth is one which will leave no trace of moisture. A cloth may be dampened by wringing out of water and hanging up until nearly dry, or by sprinkling lightly, and rolling up compactly for a few minutes. If made of cheese-cloth, shaking it vigorously in the air a few times will nearly dry it. After dusting, the duster may be washed out at once, and dried for the next day's use; or, if you are well supplied with dusting cloths, they may be washed at the time of the weekly washing.

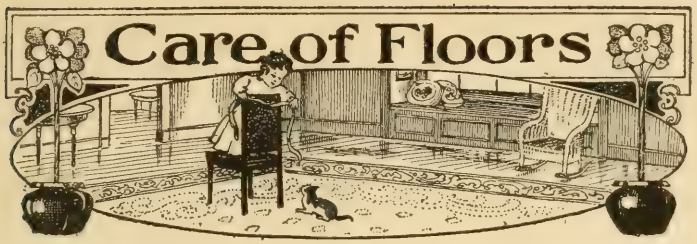
Gather up the dust from the polished furniture with a clean, soft, dry cloth.

KEEPERS AT HOME

Keepers at home—O bless them!
They're angels in heavenly places.
The smiles of heaven caress them—
Their beautiful, homely, kind faces;
Earth would be drear without them;
We should miss their angelic graces—
The holy air about them—
Preservers of all living races.

Keepers at home—how we love them!
In their kind arms God's children nestle,
Safe from the storms round and above them,
When with fierce temptations they wrestle.
Patiently doing their duty,
Faithfully bestowing love's chalice,
Theirs is the heavenly beauty,
Their humblest home is a palace.

—*Selected*



HOW TO OIL FLOORS

Clean the floor and dust the room thoroughly. Use boiled linseed oil. Apply warm, with a brush, and work in thoroughly as though putting on paint. Close the room for a few hours; then with a woolen cloth wrapped around a heavy brush or a block of wood, rub the boards until all superfluous oil has been removed, and the floor is smooth and well polished. Be careful that no free oil is left on the floor, for it will gather dust and make the floor dark and grimy.

For ordinary, light oiling, use equal parts of linseed oil and turpentine; or, if you do not wish the floor much darkened, use simply paraffine oil.

One part of the paraffine oil mixed with eight parts of kerosene oil will give a good polish.

CARE OF OILED FLOORS

Oiled floors may be cleaned by rubbing with a damp cloth or clean mop. Wring the cloth or mop well, for it only makes extra work to use much water. This will clean the dust from the floor, but will not polish it

A good cleaning oil may be made of equal parts of linseed, kerosene, and paraffine oil. Dip a woolen cloth into this mixture, and rub the floor with it. Close the room for a few hours. Cover a stiff floor brush or a block of wood with a woolen cloth, and rub until the floor is well polished.

WAXED FLOORS

Waxed floors are more beautiful than practical. They should be dusted with a cloth-covered broom or dust-mop.

Who can not give good counsel?
'Tis cheap, it costs them nothing.—Burton

Dirt spots may be removed with a cloth moistened with turpentine. As this will remove the wax, these spots should be gone over with a cloth moistened with wax.

PAINTED AND VARNISHED FLOORS

Ammonia, any strong alkali, or soap should not be used on a varnished or painted surface. In most cases, clear, warm water will be sufficient for cleaning. If not, a little borax may be used in the water.

MOPPING

We ought to be far past the day of getting down on our hands and knees and scrubbing the floor with sand, soap, and "elbow-grease." It is killing work for a housekeeper, and is altogether unnecessary. Better spend a few dollars in putting the floors in a condition not to need such scrubbing, and save strength for more profitable work.

For mopping, the old-fashioned mop is the best. It should be made of soft, porous cloth which will absorb the moisture easily. It should not be so large that it can not be easily wrung out. Too much water is generally used in mopping, though more is needed on bare floors than on painted, oiled, or varnished ones.

Much care should be taken not to slop the base-boards. Drops of water spattered upon them should be removed immediately with a cloth. The secret of good mopping is in thoroughly drying the floor with the mop. It is recommended by some housekeepers that two mops be used —one for cleaning and the other for drying. By this means, very little wringing is necessary—and wringing is the hardest part of mopping. A patent mop wringer which can be attached to the mop-pail is considered by many a great convenience.

"This poor one thing I do, instead of repining at its lowness or hardness."

When the mopping is done, both mops should be thoroughly rinsed and hung out in the sunshine to dry. A wet, dirty mop hung up in the broom-closet, or cellarway, or put away in the corner behind the kitchen door, is a serious comment upon the tidiness of the housekeeper. With such neglect the mop soon becomes unfit for use.

TO CLEAN OILCLOTH OR LINOLEUM

Under ordinary circumstances, oilcloth or linoleum can be cleaned by mopping with clear water. If something more is necessary, make a paste of whiting and soap-suds. Rub on to the floor with a cloth, then wash off with clear water. A little borax in the water will do no harm, but strong alkalies should not be used. Using about half milk with the water is thought by some to give an added luster to linoleum and to painted floors.

It will add much to the durability and appearance of linoleum or oilcloth if it is given a coat of varnish or shellac two or three times a year.

BORDER FOR A FLOOR

A very pretty border can be made for a floor by reversing a cheap grade of oilcloth, and painting it a tint to match the rug which is to occupy the middle of the floor. Of course, the paint-and-varnish border is the more common.

TO CLEAN GREASE FROM A FLOOR

If fat is upset on a bare floor, pour cold water over it immediately. This cools the fat, and prevents it from spreading and sinking into the floor. It can then be scraped up with a knife, and the spot cleaned with hot soda water.

Another good way is to spread baking-soda over the spot at once, and then pour on hot water.

My daily task, whatever it be,
That is what mainly educates me.—Gannett

AN OLD-FASHIONED WOMAN

No clever, brilliant thinker, she,
With college record and degree;
She has not known the paths of fame,
The world has never heard her name;
She walks in old, long-trodden ways,
The valleys of the yesterdays.

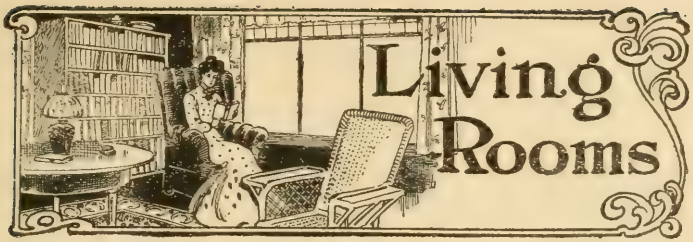
Home is her kingdom, love her dower—
She seeks no other wand of power
To make home sweet, bring heaven near,
To win a smile and wipe a tear,
And do her duty day by day
In her own quiet place and way.

Around her childish hearts are twined,
As round some reverend saint enshrined,
And following hers the childish feet
Are led to ideals true and sweet,
And find all purity and good
In her divinest motherhood.

She keeps her faith unshadowed still—
God rules the world in good and ill;
Men in her creed are brave and true,
And women pure as pearls of dew,
And life for her is high and grand,
By work and glad endeavor spanned.

This sad old earth's a brighter place
All for the sunshine of her face;
Her very smile a blessing throws,
And hearts are happier where she goes,
A gentle, clear-eyed messenger,
To whisper love—thank God for her!

—Selected



GOD SEES EVERYWHERE

Nothing useless is, or low;
 Each thing in its place is best;
And what seems but idle show
 Strengthens and supports the rest.

In the older days of art,
 Builders wrought with greatest care
Each minute and unseen part;
 For our God sees everywhere.

Let us do our work as well,
 Both the unseen and the seen;
Make the house where God may dwell,
 Beautiful, entire, and clean.

—Longfellow

THE PARLOR

The old-fashioned, isolated parlor and parlor bedroom are of the past. It is an evidence of the good sense and intelligence of the present generation, that these cold, damp rooms, with their musty smell and moldy walls, are banished from every up-to-date, well-regulated home. Heavily curtained, and closed against the sun and air without, and the heat of the living-rooms within, such rooms are a menace both to the members of the household and to visitors.

The best room is now the living-room,—bright, cheerful, and comfortable,—where the family live and enjoy their good things, and may entertain their friends at all hours.

With this improvement has also come the airy, sun-sweetened guest-chamber, where friends and strangers may

"If the counsel be good, no matter who gave it."

be entertained without exposing them to a cold, damp bed and room. In these sunless, unventilated parlor bedrooms where the beds are left made for weeks at a time and the sheets are allowed to become clammy and musty-smelling, many a person in perfect health has contracted colds and disease which have laid the foundation of rheumatism, fevers, asthma, or consumption.

Such useless, unhealthful rooms should be disinfected and renovated, and made fit for practical use.

THE LIVING-ROOM

Build the living-room large, and make it cheerful with broad windows, window-seats, fireplace, and mantel. Locate it where it will naturally be the living place of the home, and where its windows will command the most beautiful views that the site affords. It should be the brightest, sweetest room in all the house—the room to live in. Hang pictures on the walls. Keep fresh flowers on the table, and a few choice plants and ferns in the windows. It is a pity that the good old custom of having house plants seems to be passing. Flowers are beautiful everywhere, and in the home they are not only beautiful but healthful. The plants use up the carbon dioxide and throw off oxygen, thus purifying the air.

Do not overfurnish the room so as to make it seem crowded, and hard to keep clean. Have an organ or piano if you are able, a good library of books, an easy chair for each member of the family, a couch if there is plenty of room, a small table or two for books and papers, and a few bright hassocks and fancy pillows.

CARE OF THE LIVING-ROOM

When there is to be a thorough cleaning of the room, cover the large pieces of furniture that can not be moved; take the rugs out and hang them on the line, where they

A home must be well ordered, or it will become a bedlam, and be a scandal to the parish.—John Ploughman

should be thoroughly beaten; take down the draperies, shake them, and hang them out-of-doors; wipe the picture frames with a soft cloth; dust all the ornaments and bric-a-brac, and wipe off the shelves and ledges if there are any. With the dust-bag over the broom, sweep down the walls; wipe the tops of the doors and windows with a damp cloth; sweep the carpets thoroughly with a broom, and wipe up the painted floor around the edges of the carpet. Clean the windows on the inside, and allow time for the dust to settle. Then remove the covers from the furniture, dust each article carefully, bring in the draperies and rugs, and set the room in order.

It will not be necessary to clean the room so thoroughly every day. The frequency with which it should be done depends upon the size of the family and the use of the room. This the observing housewife will determine for herself. But, on the other hand, the room should receive enough daily attention to keep it clean and tidy. Always keep it orderly enough for entertaining strangers, and it will then be in the right condition for the enjoyment of your loved ones.

Every morning run over the carpet with the carpet-sweeper; wipe the dust around the carpet with your cloth-covered broom; return books to the bookcase; arrange the magazines and papers; put in place the chairs, cushions, and hassocks; do the necessary dusting; provide fresh flowers; give "a little love-touch to everything in the room," and it will look just right. All this can be done in ten or fifteen minutes. With this good beginning in the morning and a few touches during the day, the living-room can be kept tidy. It is well to keep ever in mind that the living-room is for the family to live in. It is not an old-fashioned parlor.

"A handful of common sense is worth a bushel of learning."

THE DINING-ROOM

There is no other room in the house where all the members of the family meet so often as in the dining-room. It should be kept so airy, cheerful, neat, and attractive as to be a delight to all.

An oiled hardwood floor is the best for a dining-room. If the floors are of soft wood, they may be painted or covered with linoleum or an easily swept rug. A few small rugs may be used if desired.

The furnishings need not be expensive or elaborate, but let them be appropriate and tastefully arranged. The table and chairs are essentials. A sideboard, china closet, and a small table for extra dishes when serving meals, are important accessories.

There should be no heavy draperies, unnecessary ornaments, nor bric-a-brac to harbor dust.

Brighten the room with a few choice pictures, plants, and fresh-cut flowers. Dull surroundings will spoil a good dinner, but a bright, clean room, with a few sweet flowers, and the twitter of birds, will act as a tonic, and inspire cheerful conversation and happy thoughts, which are the forerunners of good digestion.

In too many homes the meals are served in a stuffy little room off the kitchen, or in the kitchen itself, where not one bright, cheerful thing has been arranged to awaken joy and gladness. Is it any wonder that the meals are eaten in silence, or with sour and almost silent manners, or that dyspepsia, with its sullen gloom, holds high carnival in such a place?

It is wonderful what an influence the care and arrangement of the dining-room has upon a family. Smoke, disorder, and gloom create an infection of ill-temper; while cleanliness, order, and sunshine suggest smiles, kind words, and good digestion.

"The brightest of all things, the sun, has its spots."

CARE OF THE DINING-ROOM

I will seek you through the room with my broom,
Little crumb.
Ha! Have at thee! To thy doom!
Now succumb!
Table-cloth and silver tray,
Scraper, brush, and napkins gay
Toil for you three times a day,
Little crumb.

Insignificant and small, as you fall,
Little crumb,
And of no account at all
Unto some;
I am sure Goliath was
Half your size, for, dear me, suz!
Mighty is as mighty does,
Little crumb.

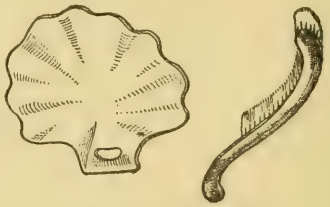
—*Burges Johnson*

Provide the table with a good, heavy pad. It protects it, and gives the linen a better appearance. Those who feel unable to purchase the table padding can improvise a pad from some material on hand. A portion of a blanket or bed-spread serves the purpose very well. Sheet wadding stitched between covers of cheese-cloth is very good for this purpose.

It is worth while to have spotless table-linen. A clean, well-set table has a refining influence upon the entire family circle, the value of which can hardly be estimated. In too many homes the well-set table is reserved for special occasions only, "when company comes." By this practice the mother loses much in the training of her children. She can hardly expect they will display good manners when away from home, if all their table training has been around an ill-set table that no one tries to keep clean. If each member of the family is taught to be careful; if large

"We can be artists, also, in our daily task. And at that word things brighten."

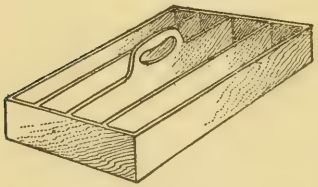
doilies are used under the plates of the small children; and if stains are removed as soon as they are made or immediately after the meal, the table-cloth may be kept clean and white for a week.



Crumb-Tray and Brush

After meals brush up carefully any crumbs that may have been scattered while dining, so that they will not be trampled into the floor.

With a little partitioned box, prepared for the purpose, gather up the silverware, each kind in a compartment by itself. Never gather up knives, forks, and spoons promiscuously, for they will scratch each other. Gather up the dirty dishes and preserve all left-over food in clean dishes. If the room is used for dining only, the table may be left spread and partially set. Brush the table and cover it. Then raise the windows for a little while, if the weather will permit, to allow all the odors from the food to pass out of the room. Brush the floor with your cloth-covered broom. After allowing the dust to settle for a short time, go over everything carefully with the dusting cloth, then the room is ready for the next meal. If little sweeping is necessary, one dusting of the room each day may be sufficient.



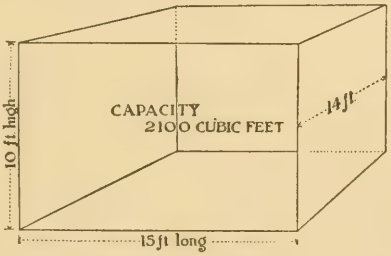
Box for Silverware



DIMENSIONS OF BEDROOMS

The idea is altogether too common that any little out-of-the-way place is good enough for a bedroom, particularly if the room is for the children or a servant. The size and location of the bedroom is of too great importance to be treated in this careless way. One-third of the hours of every day are spent, or ought to be spent, in the sleeping-room; and as these are sleeping hours, when the body is least active, and one's vitality is at its lowest ebb, it is of great importance that the room be large, well ventilated. and located so that the sunshine can have free access for a few hours every day.

A room designed for two persons should not be less than twelve feet square. Fifteen or more feet square is better if it can be afforded. A good basis for reckoning is to allow one thousand cubic feet for each person.



Capacity for Two Persons

VENTILATION

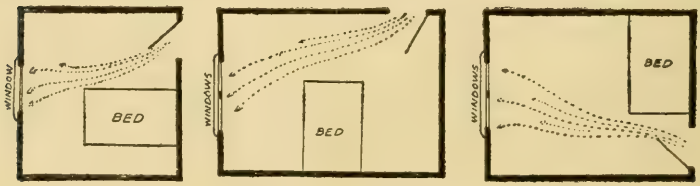
Corner rooms are the best for bedrooms. There should be two or three windows in each, located on two sides, thus providing for ventilation across the room. Where this is impossible, good ventilation may be secured by a circulation of air from a window to an open door, opposite. A transom over each door will assist in ventilating the room.

"An ounce of prudence is worth a pound of craft."

Windows should be hung on weights so as to be easily raised or lowered. When we call to mind how many people sleep in little, dark, sunless bedrooms, with the windows rigidly nailed and covered with shades and curtains, night and day, is it any wonder that the constitutions of such people are being weakened by slow poisoning, and that morning finds them with coated tongues, aching heads, no appetite for breakfast, and "as cross as a bear"? We should esteem our sleeping-rooms more honorable than we do, and make them as large, bright, sanitary, and presentable as the other rooms of the house. What an attraction it is in any home to see all the sleeping-rooms so well kept that they do not need to be shut up, but can be thrown open all day, whether strangers are calling or not.

POSITION OF DOORS AND WINDOWS

In locating the windows and doors of a bedroom, definite provision should be made for each important article of furniture. The position of the bed is of great import-



Ventilation without Exposure

ance. It is necessary to health that there be a free circulation of air through the bedroom at night; but, on the other hand, the sleeper should not be exposed to a current of air directly across the bed. As shown in the accompanying cut, the bed should be placed so that the draught of air from window to door or transom, or between two windows, should be across the opposite side of the room from the

"As you make your bed, so you must lie."

bed. Thus the bad air will be carried out of the room without unnecessarily exposing the sleeper.

In all countries, and particularly in hot climates, the best position for a bedroom is with the windows toward the east. The morning sunshine will disinfect the room and bedding before time for the room work to be done, and the room will cool off before the retiring hour.

After the other morning work has been completed, and the beds have had plenty of time to air, the bedroom work should be done.

All articles of clothing should be hung away in the closet.

Clean the toilet dishes.

Empty the slops, and cleanse the jars thoroughly, washing with a disinfectant if necessary to remove odors.

Make the bed.

Take all small rugs out-of-doors and shake them.

Sweep the large rug if you have one.

Wipe up the floor with your covered broom or with a damp cloth.

Dust and arrange the furniture, rugs, etc.

Refill the pitchers and supply clean towels.

HOW TO MAKE A BED

Turn the mattress when you put the bed to air.

Put the pad in place, spread on the under sheet, tucking it in well all around. Then spread on the upper sheet, wrong side up, tucking it in at the foot. Put on the blankets with the open end at the head; then the counterpane. Turn the end of the upper sheet down over the counterpane a few inches, and if it be a wooden bedstead, tuck in the clothes all around; if an iron bedstead, allow the spread to hang and cover the rail. Put the pillows in place, and cover them with shams.

"Common sense is the growth of all countries."

Keep covers made of old pillow-cases sewed on to your pillows, changing at least twice a year. This keeps the ticking free from yellow stain, and the pillow-case looks whiter than when directly over the ticking.

CLOSETS

A good, roomy closet for wearing apparel should be provided with every bedroom. Usually these closets are made too small. Large, well-arranged closets are of such convenience in a house that they can hardly be dispensed with. Better save expense on showy features than on this practical provision. The careful housewife will bless the husband who has the good sense and consideration for her convenience to provide a model clothes-press, having at least the following provisions:—

Plenty of room to walk about without brushing against the hanging garments.

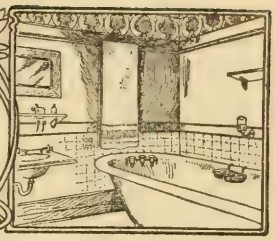
One window for light and ventilation, even though it may be small. The light will keep away moths, and will greatly increase the value and convenience of the room.

High shelves for putting away surplus clothing that is out of season.

An abundance of hooks, so that articles of clothing will not be hung half a dozen deep.

The closet may be considered a part of the bedroom, and should be cared for at the same time. It ought to be kept as orderly and clean as the more public rooms. Do not make it a dumping-place for soiled clothes, and all manner of things that you wish to put out of sight. Soiled, damp clothing will mold, and breed foul odors, and make the closet a pestiferous corner close to the sleepers. Such little corners show the character of the housekeeper's work, quite as certainly as the more public places.

Bath-Room and Toilet



BATH-ROOM

A well-fitted bath-room is not only a luxury and convenience, it is a real necessity in every home. Every poor man should endeavor to provide a bath-room, with proper appliances, though the latter may be very simple and inexpensive. It is not necessary that the room should be large, though it is very nice if one can afford it.

The floor and walls of the bath-room should be finished the same as the kitchen.

LOCATION OF THE BATH-ROOM

The location of the bath-room is a question of much importance. Only a few suggestions, and those of the most general character, can be given on this point.

It is becoming popular to place the family bath-room between two bedrooms, with no entrance except through one of these rooms. This plan has certain advantages, particularly in a small family where there are only two bedrooms. But, even then, the bath-room is not very convenient for the use of visitors, unless there is another entrance to it either from the hall or from one of the living-rooms, thus avoiding the awkwardness of being obliged to pass through one of the sleeping-rooms.

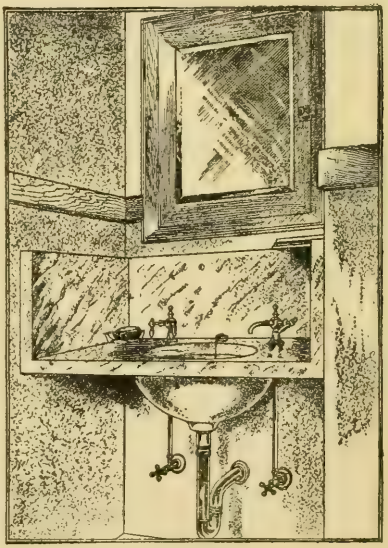
In a two-story house where the bedrooms are mostly up-stairs, it is usually best to locate the bath-room up-stairs also, with an entrance from the hall. Where there are several bedrooms in a one-story house, it is well to locate the bath-room so it can be entered from the main hall or from the kitchen. In every case it should be where

"The worth of a thing is best known by the want of it."

it will be most conveniently accessible to all members of the household, including guests.

FURNISHINGS

A good bath-tub and wash-bowl are the most important furnishings. To these should be added, according to one's ability, such items as shower bath, spray, toilet case, towel rack, massage table, sitz bath, and such other items as may be necessary for giving ordinary baths and simple home treatments. All these items are not absolutely essential; for special arrangements may be improvised when needed in case of sickness. But it is indeed a luxury if all these conveniences can be installed when the house is built, so as to be ready when needed.



Sanitary Plumbing

No carpet should be nailed down to the floor. Nor should heavy rugs be used which can not be washed. Light-weight bath rugs are now made, and sold by all furniture dealers for this purpose, and they are very nice to place on the floor as needed.

CARE OF THE BATH-ROOM

The bath-room should not be made a hat room, a clothes closet, nor a catch-all for brooms, mops, buckets, cleaning cloths, and dusters. These things should all have their

"A thrifty housewife is better than a great income."

proper place, that the bath-room may be left clean for its own purposes. When doing the morning work, give a few minutes to this room. Remove the soiled towels, and supply fresh ones.

Sweep the floor, and wipe it up, if necessary, with water containing a little borax.

The bath-tub should be cleaned daily. This can easily be done by going over it with a cloth saturated with kerosene, and then rinsing it out with hot water. Or better still, use Porcela, a powder especially prepared for cleaning enameled and porcelain ware.

Rough, coarse towels are better than finely woven ones; for they absorb the water quickly, and chafe the skin into a healthy glow. We should as soon think of using note-paper with a high finish for blotting purposes, as to expect a finely woven, glossy fabric to be used for wiping the hands and face. For the use of the children and laboring men, crash toweling is as serviceable and agreeable as any that can be used, and is easy to launder.

In spite of careful, daily attention, the marble wash-bowl is likely to become discolored, and will need something more than soap and water to clean it. (See recipe for cleaning marble, page 186.)

SUGGESTIONS FOR CLEANING

If the bath-tub or marble wash-bowl becomes stained, make a hot saturate solution of salt and vinegar; that is, put into hot vinegar all the salt it will dissolve. Wash the tub or bowl with the solution while hot, using either a scrubbing brush or swab. If the stains seem obstinate, let the mixture remain on the surface for a little while, then wash off with clean water. This will remove the stains when even ammonia, sapolio, or various acids are powerless to do so.

"The way to avoid great faults is to beware of small ones."

Under ordinary circumstances the bath-tub and bowl may be easily cleaned with a cloth dampened with gasoline, naphtha, or kerosene oil. After rubbing with oil, wash with warm soap-suds.

THE TOILET

The toilet should not be connected closely with the house, except when provided with sanitary, water-flushing fixtures. Even then in a warm climate it is better that it should not be located in the body of the house, but rather where it may be approached from the back veranda by an outside door. It should be well painted and clean, and supplied with a large air ventilator in the top. If the house is not provided with water so as to admit of sanitary plumbing, the toilet should be located a reasonable distance from the house. (For suggestions on the care of the outside toilet, see page 57.)

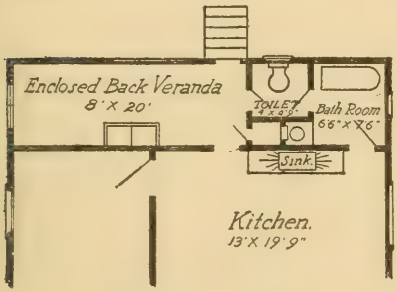
In very cold climates, the above suggestions on the location of the inside toilet will need to be modified in harmony with the plan of the house, and the method of heating it, so as to guard against freezing.

If the toilet is connected directly with the house, it is of special importance that it be cared for in a sanitary way. Constant attention should be given to the plumbing and ventilation to make sure that gases from the sewer or cesspool do not escape. The walls and floor should be kept well painted and scrupulously clean. Provide soluble toilet paper, as other kinds may cause a stoppage in the pipes. Printed paper should not be used, for it is claimed on good authority that printer's ink is often responsible for serious rectal diseases. The vault should be kept clean, and disinfectants should be freely used.



WELL-APPOINTED KITCHENS

How can we describe what a kitchen really ought to be, since the ideal is so far removed from what exists even in many palatial homes? Here is where the housewife spends the most of her working hours, and here the family meals are prepared. Martin Luther says, "The stomach is the kitchen of the soul." Another writer defines man as "a stomach with appendages," thus making the stomach the center of great importance. The kitchen is to the house what the stomach is to the body,—the source of supplies, and the helpless agent of many of its troubles.



Convenient Arrangement

A well-appointed, intelligently managed kitchen is an essential of successful home-making. How can a husband expect his wife to meet him with a beaming face, neat attire, and a first-class dinner, when she has spent her morning hours in a dingy little kitchen, fitted with wretched appliances? To expect anything of the sort to come out of such a workshop is equal to Egyptian slavery, which demanded bricks without straw. By making the kitchen what it should be, the builder of the house can do much to elevate the housewife's kitchen duties above the level of such slavery.

A perfect woman, nobly planned, to learn, to comfort, and command.—Wordsworth

Here fresh, pure air and sunlight, with first-class conveniences, are indispensable.

"Half the trouble between mistresses and maids arises from the disagreeable surroundings to which servants are confined. There is no place more dismal than the ordinary kitchen in city dwellings. It is half under-ground, ill-lighted, and unwholesome. What wonder, then, in the absence of sunlight, that there is a lack of sunny temper and cheerful service? An ill-lighted kitchen is almost sure to be a dirty one, where germs will thrive and multiply. Let sanitary kitchens be provided, and we shall have more patient mistresses and more willing servants."

"If we would look for ready hands and willing hearts in our kitchens, we should make them pleasant and inviting for those who literally bear the 'burden and heat of the day' in this department of our homes, where, emphatically, woman's work is never done. We should no longer be satisfied to locate our kitchens in the most undesirable part of the house. We should demand ample light,—sunshine if possible,—and justly, too; for the very light itself is inspiring to the worker. It will stir up cheer, and breed content in the minds of those whose lot is cast in this work-a-day room."

What has already been said about soft, unfinished floors applies particularly to the kitchen. Hardwood, finished with oil, makes the best floor. For those who are unable to provide hardwood floors, or who already have soft wood, there are several inexpensive means for making them satisfactory and sanitary.

Keep the floor well painted with hard, glossy paint, or stain it the desired color, and put on one or two coats of hard oil. This looks well and is easily kept clean. If a covering is desired for the floor, put down a good quality

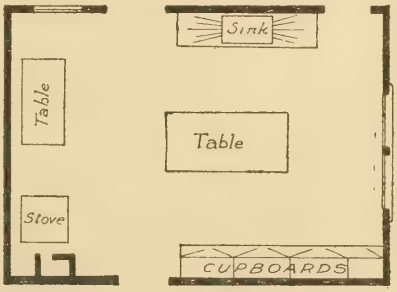
"There is no general rule without some exception."

of linoleum. Do not use a carpet or rugs, for they soon become filthy.

Wainscoting and plaster make a good finish for the walls of the kitchen. Dress the woodwork with filler and hard oil or varnish, and, after filling the plaster with glue sizing, paint the walls two or three coats. The paint and varnish will not absorb moisture from the steam, and they are easily washed. Paint a bright, cheerful color.

Another good finish may be used in the place of the wainscoting. Finish the walls four and a half or five feet high with cement or "alpine" plaster. Before the plaster is fully dry, mark it off in the form of bricks or tiles. Size, and paint with white enamel, or with common white paint, and two coats of white jap-a-lac.

Tiling is also good, but more expensive. Above this finish the walls should be plastered and painted as described above. Finish with the ordinary baseboard and a molding at the top of the jap-a-lac.



Kitchen without a Pantry

FURNISHINGS

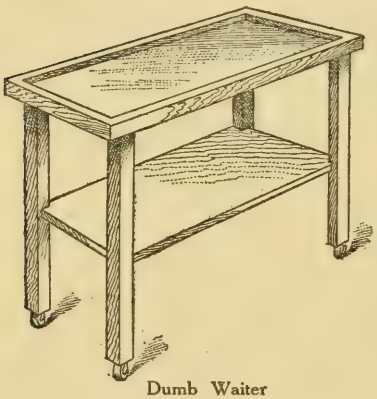
Furnish the kitchen well, but with furniture that can easily be kept clean. Study convenience in the arrangement of cupboards, and other articles of furniture. Group such things together as belong to a particular line of work. Many steps may be saved in this way. Have table, with kneading-board, flour, and sugar, and a cupboard, with a few plain dishes, basins, and measuring cups, baking pans, etc., on the same side of the room, close together.

"A bridle for the tongue is a necessary piece of furniture."

A large sink, with draining boards, having hot and cold water, is almost indispensable in the kitchen.

Plenty of cupboard room is of much importance. There should be a place for everything, and as soon as the dishes are washed, they should be put away in their proper places.

Sufficient table room is a great convenience. If the kitchen is large, a good-sized work-table, and a small zinc-covered table with casters, are very convenient.



Dumb Waiter

There should also be bins for flour, meal, sugar, etc., and a few drawers.

Every kitchen should be provided with a good timepiece. "Always be on time," is a very appropriate motto to hang over it.

A slate and pencil, hung in a convenient place, is handy for jotting down memoranda of grocery orders, writing down menus for the day's bill of fare, etc.

The chief article of furniture for a kitchen is a good stove or range. One must be governed in purchasing by the size of the kitchen, the number to cook for, and the kind of fuel to be burned. A good gas or gasoline range, as an accessory, is very convenient. In summer it saves from the heat of a coal or wood fire. It also saves litter with the fuel; it is a time saver, as it can be hot and ready for use in two or three minutes; and it is a fuel saver, as the fire can be extinguished as soon as the cooking is done. To do good work, and to prevent unhealthful odors, good fuel must be used, and the stove kept clean. The rooms in which these stoves are used should be well ventilated, for

"Think of ease, but work on."

they consume the oxygen rapidly. For baking they are excellent, as the heat can be regulated easily and with exactness.

KITCHEN UTENSILS

If there are proper places to keep them, one can hardly be supplied with too many utensils in the kitchen.

Two or three dish pans, a dipper, pails of different sizes, basins, colanders, strainers, steamers, baking pans, double boilers, gem irons, gem pans, sauce pans of different sizes, egg beater, egg whip, can opener, funnels, flour sifter, rolling-pin, large spoons, bean pot, vegetable knives, iron dish-cloth, vegetable brushes, scrubbing brushes, and crocks, jars, etc., are some of the necessary utensils.

Besides these there should be a few common dishes, such as bowls, cups, saucers, plates, and pitchers.

KITCHEN WORK

Much care should be taken to keep the kitchen clean and free from dust. If the floor is oiled, painted, or covered with linoleum, it is but little work to wipe it up with clear, warm water each day, and this keeps it fresh and clean. Keep a cloth-covered broom handy and use it for sweeping the kitchen.

As much pains should be taken in dusting the kitchen as in dusting the parlor. This is the room of all others that should be free from floating germs. Dust with a damp cloth.

DISH WASHING

"When a woman has washed the dishes
A thousand times and one,
Sometimes that woman wishes
Away from it all to run."

To some housekeepers, dish washing is the bane of the kitchen work. It need not be so if done systematically.

Of every two men probably one man thinks he is a drudge, and every second woman at times is sure she is —Gannett

The first essentials are good, large dish pans, an abundance of soap and hot water, and plenty of clean towels. All dishes should be well scraped, so that scraps of food will be kept out of the dish water.

Butter and all other grease should be carefully removed, as it makes dish-washing both hard and disagreeable.

Prepare hot soap-suds, and wash the glassware first. This should be rinsed, wiped, and put away immediately. Next, wash the silver, dry it, and put it in its proper place; then cups and saucers, fruit plates, soup dishes, plates, individual dishes, pitchers, serving dishes, etc. Use plenty of hot water for rinsing, turn the dishes down on the draining board, and it will require but little work to dry them. If there are many and the dish-water gets cold and dirty, empty it out and make clean suds.

Dishes washed in clean soap-suds, rinsed with hot water, and dried with a clean tea-towel, will be smooth and shiny, and will look enough different from the dingy dishes that are less carefully washed to inspire the heart of the housewife to cheerful, faithful work.

CHINA

Hand-painted china, and china with gilt ornamentation, should not be washed with soapy water. If allowed to stand long in hot water, the decorations will be injured sooner or later. Soap dulls the gold, and makes it rub off.

Damp salt will remove stains from china.

If the kettles and other cooking dishes have been put to soak properly, they will be easy to wash. Pour hot water into them and cover closely as soon as the food is removed, and let them stand on the stove where they will steam. In a short time the particles of food that seem to be "grown fast" will wash off as readily as from the

A little neglect may breed great mischief.
—Benjamin Franklin

serving dishes. Kettles should be washed in clean water, rinsed, and dried before putting away.

DISH-CLOTH

Much has been said on the care of the dish-cloth. It is certainly an important subject. It is a deplorable fact that in many homes "any old rag" is considered good enough with which to wash the dishes. A coarse linen cloth is the best for a dish-cloth. If this is not at hand, use some loosely woven material, like cheese-cloth, or something knitted or crocheted for the purpose, that can be easily kept clean. There is no more fertile place for the breeding of microbes and disease germs than in a dirty, neglected dish-cloth. It is an excellent plan to have two sets in constant use, that may be used on alternate days. Each day they should be thoroughly washed (adding a little sal soda or ammonia to the water), rinsed, and hung in the sunshine to dry. The direct rays of the sun will kill the germs. If the dish-cloth becomes discolored, or acquires an odor, burn it.

The same care should be taken with the dish-towels. It will cost but little to have a good supply of them, so they can be washed and boiled and kept fresh and clean.

A NOVEL SUGGESTION

Dishes may be washed without putting the hands into the dish-water. A lady writing in one of the popular magazines suggests using a pair of old shears about eight inches in length to handle the dish-cloth. With the shears in the right hand, as if going to cut with them, grab up the cloth from the hot water with the points, and manipulate it the same as a dish-mop. This is good for washing deep articles where the hand can not go. Boiling water can be used if necessary, for the dishes need not be touched

"The universe is not quite complete without my work well done."

with the left hand until they are pushed up out of the water with the covered points of the shears. If this does not prove as practicable as the lady recommends it to be, the suggestion will apply to a dish-mop used in the same manner. The chief advantage in this method of dish-washing is that hotter water can be used without injury to the hands.

JAVELLE WATER

Javelle water is one of the most useful of all cleaning fluids for kitchen use. Nothing is better for cleaning and whitening the kitchen table. Thoroughly wet the table with javelle water, allow it to remain half an hour, and then give it a thorough washing with clear water. Javelle water is also good for cleaning greasy cooking utensils, and cutting grease or dirt out of the sink and drain pipes. The chloride of lime in it is a powerful disinfectant, and will remove bad odors where it is used. Dilute it for use. Keep it tightly corked and plainly labeled. (See page 166.)

CARE OF LAMPS

Much trouble with kerosene lamps is caused by trying to burn a poor quality of oil. It may not be necessary to buy the highest priced oil, but a good quality is the cheapest and most satisfactory.

Coal-oil should not be put in a cold place. If the kerosene is put into the lamps when very cold, it will smell disagreeable, even if the quality is good. If the large tank must necessarily be kept in a cold place, fill a small can with enough for a day's use, and keep it where it will not be very cold when the lamps are filled. Much of the trouble with coal-oil stoves and with bad-smelling lamps is caused by making this mistake.

When used much, lamps should be cleaned and filled daily.

"Want of care admits despair."

Spread a newspaper on the table; take off the chimney, and turn up the wick until the charred part is above the burner; pinch off the burned bits of wick with your fingers and a bit of paper, or with the points of the scissors; trim with the scissors if necessary to make the wick perfectly even. Be careful that none of the burned specks get into the air-chamber; if this is not kept open, the lamp will smoke and give a dull light.

CLEANING LAMP BURNERS

It is important that the burners be kept clean. Boil them occasionally in a strong solution of borax, or sal soda and soap. Boil from one to two hours, and the result will be highly satisfactory.

Stains and tarnish may be removed from lamp burners by allowing them to boil for about thirty minutes in water in which beans have been parboiled. Wash in warm suds, dry thoroughly, and they will look like new.

Wash the chimneys in warm soap-suds, and wipe with a clean, dry cloth that will leave no lint.

Do not fill the lamps quite full; for in a warm room the oil expands, and runs over the top, soiling the lamp and sometimes causing accident by fire. A good rule is to fill within one-half inch of the top.

Lamps as well as people require pure air; they consume oxygen and throw off carbon dioxide. Lack of oxygen is a menace to life, and it also makes the lamp burn dimly. Without oxygen life becomes extinct, and the lamp goes out. The air in the room must be kept pure in order to have a good light.

CARE OF THE STOVE AND FLUE

A kitchen can not be made to look neat and tidy with a dirty, greasy, or rusty stove. A well-polished stove or range is an ornament. If it is impossible to keep it pol-

"Wisdom is neither inheritance nor legacy."

ished, the stove can, at least, be kept clean. If washed with a soapy cloth, it will look very well.

Stove-polish should be mixed with benzine instead of water. Most experienced stove-men mix their blacking this way, which accounts for their obtaining better results than a woman generally does. It should be borne in mind, however, that the stove should be perfectly cold when the blacking, mixed in this way, is applied. Turpentine mixed with the stove-polish also gives an added luster. Some housekeepers recommend that the stove be washed with vinegar before blacking.

The isinglass may be thoroughly and quickly brightened with salt and vinegar. Rub briskly with a soft rag dipped in the solution, being careful to clean well in the corners.

To keep the nickel on the stove bright, make a thin paste of ammonia and baking-soda, and rub the paste on the nickel with a woolen cloth, then polish.

If blacking is applied to a rusty stove or pipe, the rust soon eats through. This may be prevented by first applying raw linseed oil, and heating with a moderate fire for a short time; after which it may be blackened in the usual way.

Keep the soot cleaned out of the pipe and chimney by occasionally burning pieces of zinc in the stove. This is of special use when burning soft coal, or any other fuel that causes soot to collect rapidly. By this means the soot and the zinc are both consumed.

To extinguish a fire in the chimney, throw a handful of sulphur or salt in the stove.

If a small hole or crack appears in the inside of your range, it can be easily filled with a mixture of equal quantities of wood-ashes and common salt, moistened with water. This will harden and last for a long time.

Care and diligence bring success in any line of work.

In kindling a fire, coke will give a hot oven much more quickly than coal. Then put on coal to keep the fire, as the coke burns out rapidly. Coke makes good fuel for summer use, because it will give heat for baking and die down as soon as it is no longer needed.

The stove should be kept clean on the inside as well as on the outside, or good work need not be expected of it. If much cooking is done, the stove should be brushed out and the ash-pan emptied every morning before the fire is built. The ashes and soot should also be cleaned out frequently from around the oven to insure good baking.

THE SINK

A large sink, while a great convenience, is perhaps the most difficult of all the furnishings of the kitchen to keep in a clean, sanitary condition. The heavy, white enameled sinks are good, and not very expensive. Unlined wooden sinks are entirely objectionable from a sanitary point of view, and should never be put in any house. For hard usage, a wooden sink lined with zinc is serviceable.

The old-fashioned "sink-cupboard" is nearly always dirty and unsanitary. The space under sinks or other water fixtures should not be enclosed, so as to give dark hiding-places for germs and dirt, which are most likely to accumulate in such damp, out-of-the-way corners. If "sanitary plumbing" is installed, as already described under that heading, and if the pipes are kept clean and disinfected (according to the instructions given under "Care of Plumbing" and the "Use of Disinfectants"), the sink may be kept as sweet and sanitary as any other furnishings of the kitchen.

ENAMELED WARE

Enameled ware, if burned or discolored, should never be scraped with a knife or any hard substance which

Keep clean, be as fruit, earn life, and watch,
Till the white-winged reapers come.—Henry Vaughan

might scratch or break the enamel. To remove burned spots or stains, fill the dish with water and place it on the range. Add a teaspoonful of sal soda to each quart of water, or a teaspoonful of chloride of lime, and boil till the stains have disappeared. Then boil out with clear water. If fairly clean, the soda water can be bottled up for future use, or it may be poured into the sink as a disinfectant.

ALUMINUM WARE

If properly treated, aluminum utensils are very satisfactory, but they must be well cared for. The metal is injured by alkalies and acids. After washing with soap, thoroughly rinse with clear water. This metal should never be scoured with anything that has grit in it. Use fine whiting or silver polish to remove tarnish.

BRASS AND COPPER

There are many preparations for cleaning brass quickly and well, but the old method of using rottenstone and oil is quite as satisfactory as the newer ones. Wash the brass in soap and water, then dry. Wet finely powdered rottenstone with sweet-oil and rub the brass with the same, using a woolen cloth. Go over it with the dry powder and a clean cloth, then polish with a chamois skin.

Paste made of sweet-oil and powdered putty is also good for cleaning brass and copper. After using the paste, wash in hot water and soap, and then polish.

Old brass may also be cleansed by pouring strong ammonia upon it, scrubbing with a brush, and rinsing with clear water.

Salt and lemon juice or salt and strong vinegar are also good for this purpose, but this mixture must be thoroughly removed or it will tarnish the brass again.

Good prepared pastes can be purchased for polishing

Yet, fool that I am, this pressure of my daily task is the very thing that I so growl at as my drudgery.—Gannett

brass, and these are the most convenient and satisfactory for those who have much of this kind of ware to clean.

NICKEL

Nickel utensils can be kept bright by the use of a thin paste made of ammonia and baking-soda. Polish with a woolen cloth.

To remove rust from nickel-plating cover the spots with mutton tallow and let it stand for several days. After the treatment rub with powdered rottenstone, and then wash with strong ammonia, followed by clear water, and a final polishing with dry whiting. Stubborn cases will yield to this process.

ZINC

Zinc may be cleaned by rubbing with a soft flannel cloth moistened with kerosene oil. If the spots are of long standing, use a little powdered bath brick with the kerosene, or scour with sapolio, or pulverized bath brick and lime. Wash in hot water, and polish with common whiting.

METAL COOKING DISHES

These utensils may be cleaned on the inside, even when they have become black from long use, by filling with soft water, throwing in a small piece of soap, a spoonful of borax, and allowing to boil for about an hour. Cover the vessel while boiling. Rinse with clear water, and they will be as bright as new.

TINWARE

Tinware should never be scoured with any gritty substance; for it will soon spoil the dish by wearing away the thin coating of tin. Whiting is the best material that can be used for this purpose. After washing and drying tinware, rub it with a greasy cloth, and it will keep bright indefinitely.

"Not how much I know, but how much do I do with what I know?"

KITCHEN KNIVES

Steel knives should be polished with bath brick or sapolio. Wash with soapy water and dry thoroughly.

To clean bone, ivory, or pearl handles, use moist, fine salt; afterward polish with a soft, dry cloth.

To remove onion odor from knives, scour them with damp earth.

BURNED KETTLES

If the kettle is badly burned, fill it half full of water, put into it a basinful of wood-ashes or two tablespoonfuls of sal soda, and allow it to stand on the stove and boil two or three hours, or until the burned substance can be washed off easily. After boiling, it will need little or no scraping.

SILVERWARE

Much care needs to be exercised to keep the silverware bright and free from scratches. Knives, forks, and spoons should not be handled together promiscuously.

A good mixture for polishing silver may be made as follows: Take four ounces of whiting and boil in one pint of soft water. Cool, and add one ounce of ammonia. This should be bottled and kept for daily use.

Rub the silverware with a cloth wet in this mixture, and polish with a piece of cotton flannel or chamois.

HOME-MADE SILVER CLOTHS

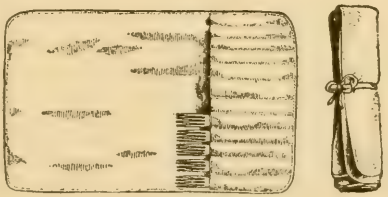
Cloths for daily use in polishing silverware may be prepared by dipping them into a solution made by boiling two ounces of carbonate of ammonia in a pint of soft water. Dip soft pieces of muslin, cheese-cloth, or cotton flannel into this solution and hang them up to dry, without wringing. When dry, these may be laid away for use. Simply rub the silver with these cloths, and its appearance will be

"Economy is a fine thing, and makes ninepence go farther than a shilling."

much improved. This is not supposed to take the place of formal scouring.

TO PREVENT SILVER FROM TARNISHING

When the silverware has been properly cleaned, wrap each piece separately in tissue-paper, and it will not tarnish if laid away for almost any length of time. It is an excellent plan to make bags out of unbleached cotton flannel, especially for the knives, forks, and spoons. The chemicals used in bleaching tend to tarnish silver. Make them double, leaving an opening in one end, and stitching so as to insert each article in a space by itself. These should be large enough to hold about a dozen pieces. Placed in bags of this kind, they can easily be rolled and tied up, and put away.



Cloth Case for Silverware

CUT GLASS

In cleaning cut glass, wash the article, dry, and then rub with prepared chalk, using a soft brush, and going carefully into all the incisions.

KITCHEN WISDOM

When grease is spilled on the kitchen stove, throw a handful of salt on it. This will prevent any disagreeable odor from arising.

Keep a piece of pumice-stone by the kitchen sink to use in scraping dishes. It does effective work sometimes when a wire dish-cloth fails, and it may be used on dishes that the wire would injure.

Use hot soda water for cleaning the refrigerator thor-

She looketh well to the ways of her household, and eateth not the bread of idleness.—Solomon

oughly once a week. It should be allowed to dry before placing any food in it.

The oil-cloth or linoleum on the kitchen floor may be made to look almost as bright as new by giving it two coats of linseed oil or shellac.

Dissolve a cup of washing soda in boiling water, put in a bottle, and keep it for cleaning the kitchen sink.

Lime-water is a great convenience in the kitchen. To make it, put a pound of unslacked lime in a fruit-jar, or some vessel with a close cover; fill with water and cover tightly. After it stands a day or two, pour off the clear water from the top, and strain through a thick cloth, or several thicknesses of a thin one. Place in clean jars and keep closely covered, or it will lose its strength. Keep the vessel containing the lime filled with water, and a fresh supply will always be ready for use. A part of a cupful of lime-water put into a little water is very good for cleaning milk vessels, greasy dishes, sinks, and, in fact, nearly all utensils about the kitchen.

THE PANTRY

Many houses would be improved if the space occupied by the pantry were included in the kitchen, and the kitchen were provided with cupboards and other necessary conveniences so that no pantry would be necessary.

Perhaps no place in the house, unless the cellar and closets be excepted, is so likely to be neglected, and become unwholesome, as the pantry.

If there is a pantry, let it be commodious, well lighted, and fitted with proper conveniences; but in putting in these conveniences, there should not be any dark, poky places, where all manner of things can be stowed away out of sight.

Every inch of space in the pantry—walls, cupboards,

"'Tis skill, not strength, that governs a ship."

and shelves, excepting the broad shelf—should be either painted or varnished. Use white paint, for that will look the cleanest and best while it *is* clean, and will show the dirt when it is dirty. This place, of all others in the house, should be kept scrupulously clean.

The broad shelf should be finished with oil, so it can be scoured and kept clean.

TIDY ARRANGEMENTS

It adds much to the appearance of the cupboards if the breakfast foods, raisins, and other articles which are purchased in pasteboard boxes, can be kept in properly labeled glass jars. By this means they can be kept tightly covered, and free from every kind of vermin, and, the cans being transparent, the housekeeper can see at a glance what she has in store, and what needs replenishing.



Labeled Jars

Do not allow flour, grains, or other eatables to be scattered about the floor or shelves. A little care in this respect will save much work and worry in trying to exterminate vermin, and it will help to banish from the pantry those foul odors which are so common in many homes.

Milk and other perishable foods should not be allowed to stand around in dishes on the pantry shelves until they are sour and moldy. They simply catch and multiply germs, and make the pantry an unfit place for food which should be preserved for future use. Each morning make a general clearing out of all left-overs, thus keeping the pantry sweet and tidy.

"Cut your coat according to your cloth."

PANTRY SHELVES

People living in rented houses, who do not care to go to the expense of painting the pantry shelves, can keep them tidy by covering with clean papers. These should be changed frequently, as they readily harbor crumbs and vermin. If it can be afforded, oil-cloth is better than paper. It gives a better appearance and can be easily wiped with a damp cloth, and kept clean and free from dust. The covers should be removed frequently and the shelves cleaned.

As suggested above, the best covering for the shelves is paint. Two good coats of white paint, and if one can afford a little extra expense, two more coats of jap-a-lac or white enamel paint will make a beautiful sanitary covering.

A pretty, artistic arrangement for shelves in china closets is fancy paper napkins, falling daintily over the edge. These can be changed often, and they give an attractive appearance to the cupboard.

WHO BUILDS THE HOME?

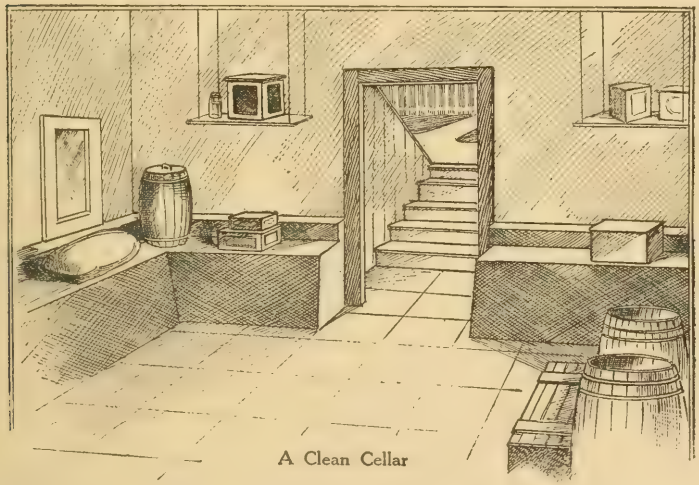
"A house is built of bricks and stones,
Of sills and posts and piers;
But a home is built of loving deeds
That stand a thousand years.
The men of earth build houses,
Halls and chambers, roofs and domes—
But the women of the earth,—God knows!
The women build the homes."



The Cellar

AN IMPORTANT ROOM

The cellar should be regarded as one of the rooms of the house. From the standpoint of health alone, it would be better if no cellar were built beneath our homes, as there is great danger of neglecting a storehouse of this kind. In some localities the cellars are mostly built apart from the house. This is an excellent precaution



A Clean Cellar

against unsanitary conditions arising from that source. But the majority of houses already have cellars or basements beneath them, and we should turn our attention chiefly toward making them as sanitary as possible. If properly built and cared for, a cellar beneath a house may not be in the least objectionable. The following are a few points to be observed:—

"Experience is the father of wisdom, and memory the mother."

1. The cellar should be well built. No feature in house building is more important. Cement, cement and cobblestones, bricks and mortar, or stones pointed up with cement or mortar, are excellent materials. The walls and floor should have a smooth finish. A cement finish is the best, as it can be most easily kept clean. Cellars should be swept and cleaned thoroughly and often; therefore it is necessary that they have a smooth finish.

2. Several windows should be provided; also good means of ventilation. Fresh air will keep the cellar dry and wholesome, and sunlight will destroy germs.

3. Provide plenty of shelves for vegetables, canned fruit, etc. It is a good plan to suspend these from the ceiling. Whether there is a stairway leading from the house to the cellar or not, always provide a good outside entrance.

4. Never build a cistern in the cellar, either above or below the surface, nor near enough on the outside so that dampness will soak through. And, above all things, do not dig the well in the cellar; it may be as convenient as to "keep the pigs in the parlor," but it is equally filthy, more unsanitary, and a great menace to health.

5. The ground floors of the house which constitute the ceiling of the cellar should be built double and as perfectly tight as it is possible to make them, thus preventing dirt from sifting down into the cellar, and odors from arising through the floor into the living-rooms above.

6. Keep the cellar free from decayed vegetables, filthy boxes and barrels, cobwebs, and litter of all kinds.

7. Whitewash the ceiling in the spring, also the walls, unless they are finished with cement.

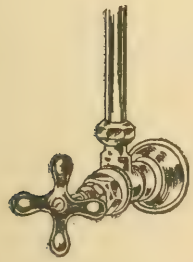
8. Provide screens for the windows, so they can be kept open all the time in summer, and arrange for as much ventilation in winter as the climate will permit.



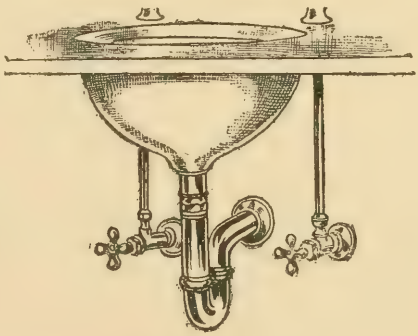
IMPORTANT ITEMS

Constant and careful attention must be given to the plumbing to prevent unsanitary conditions. If sanitary plumbing is installed according to directions already given in the building of the house, the difficulties will be minimized.

A valve or cut-off should always be provided somewhere on the main line, leading to the fixtures, so that the pressure can be entirely cut off when accidents occur to the faucets or the pipes, or when it is necessary to make repairs. A cut-off should also be provided below each water fixture, so that the water can be cut off from any one of these, if necessary, while the supply is continued to the other parts of the house.



General Cut-Off



Cut-Off Below Each Faucet

If any of the fixtures are boxed in, the casing should be torn away, and the exposed fixtures painted with aluminum paint or whatever will match the room.

"One ounce of discretion is worth a pound of wit."

STOPPAGE IN PIPES

One of the chief difficulties arises from stoppage in the pipes. Nothing should be allowed to enter them which will not dissolve. The worst things are hair and lint, and they are the things that one is most frequently tempted to throw into the wash-basin. They are almost certain to catch in some rough place or joint, and accumulate until a stoppage is caused, and a plumber must be engaged to clean the pipes.

Old rags and indissoluble paper should never be thrown into the flush toilet.

Burned matches, fruit parings, and strings are frequent causes of trouble. Children should be taught the danger of throwing such articles into the water fixtures.

Grease will harden on the sides of the pipes, and become a catch-all for solids, and finally close up the pipes. All greasy dishes should be well scraped before washing, to keep the grease from going into the waste-pipe.

The following are a few suggestions to guard against the pipes becoming stopped up or unsanitary:—

All fixtures should be well flushed after using.

At least once a month flush the appliances with a solution of sal soda, in the proportion of about one pint of soda to three gallons of water. Use half a gallon of water in flushing each of the pipes. This disinfectant should be poured rapidly into the pipes so as to fill them full, while it flows, thus bringing the solution into contact with all the inner surface. Other solutions are equally good, as will be seen under "Disinfectants," page 527.

If, through neglect, grease has been allowed to stop the pipes, it may be removed by pouring down the pipes two quarts of boiling water in which has been dissolved a pound of potash. A few minutes after, flush with hot water.

He who works diligently, but not carefully, throws away with one hand what he gathers with the other.—Colton

FREEZING PIPES

In winter time, in cold countries, there is constant danger of pipes bursting from freezing. In such places pipes should be buried below the frost, and should be brought up inside the building where they will be least exposed to the cold. The danger is lessened by allowing the water at certain faucets to drip slowly during the night. If all other means fail to prevent freezing, a cut-off may be put in back of the danger point, and provision made for drawing off the water from the pipes so that they will be empty during the night. Then the water can be turned on in the morning.

In case of a sudden leak, turn off the water at the cut-off, and mend the leak temporarily with a thick paste made of common laundry soap and whiting bound on with a strong cloth. Or, better still, apply thick white lead to the leak and bind on with a cloth or a piece of old rubber.

LEAKING JOINTS

When the plumbing is put in, the joints in the pipes should be carefully tested to make sure that there are no leaks; for it is expensive and awkward to tear down and make repairs after the work is once done.

When leaks are discovered, they should be immediately repaired. If the water-pressure is not too strong, this may be done temporarily with soap and whiting or white lead bound on with a cloth. To make a good job it may be necessary to put the joints together again more carefully.

DRIPPING FAUCETS

A faucet that always drips is a real annoyance, and should be repaired, or replaced with a better one, rather than endured. This can be done by any "handy man." Shut off the water from the faucet to be repaired, take

Prompt repairs is one of the first principles in household economy.

it to pieces, and see what the trouble is. It is often some very little thing easily put right. Perhaps a new washer is needed. If the faucet is worn out, get a new one.

FOUL ODORS

Foul odors from the water fixtures are signals of trouble. Find the cause at once, for "delays are dangerous" when there is trouble in the sewer. The odor may be traced to one of many causes, among which the following are the most common:—

A neglected sink. It should be promptly cleaned and disinfected as described under "Disinfectants," page 527.

A leak in the waste-pipes under the sink or wash-basin. Clean and disinfect thoroughly.

A dirty bath-tub and neglected waste-pipes.

A stoppage in the pipes.

Escape of gas through the traps. (See pages 49, 50.) This is a serious difficulty. It usually results from imperfect work in putting in the fixtures. If there is no vent, or if the vent is too far removed from the trap, the outrushing water, acting as a siphon, draws the water out of the trap, and leaves it open so the sewer-gas can escape. The only sure remedy is to supply a proper vent. Where the vent-pipe is small, it frequently fills with rust-scales, and thus becomes practically useless.

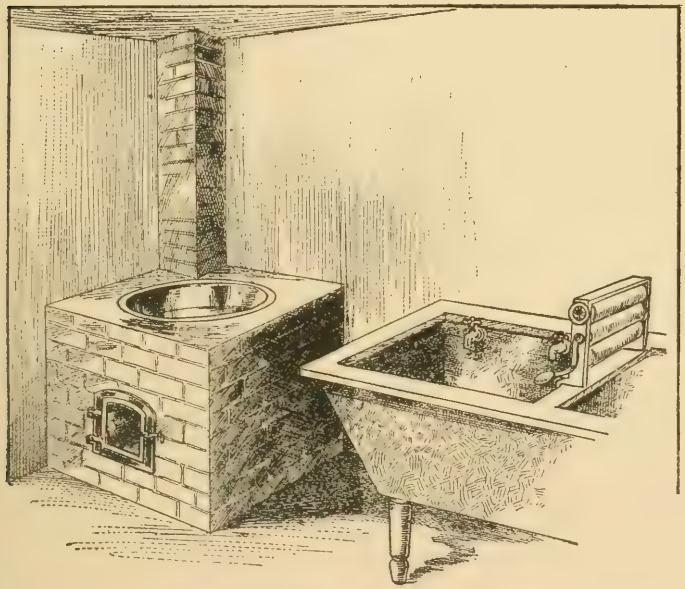
PROMPT ATTENTION

At the risk of seeming monotony, we repeat the oft-repeated injunction that immediate and thorough attention to defects in the plumbing is of great importance. Small defects often seem trifles at first, hardly worth time and attention; but like all evils, they soon grow, and do serious damage to the house and its inmates.



THE WASH-HOUSE

It is unfortunate that it is ever necessary to do a washing in the kitchen; for the steam and unpleasant odors spread through the other rooms, making them damp, dis-



A Colonial Copper Boiler, and Stationary Tubs

agreeable, and more or less unsanitary. Besides, it makes much extra hard work in getting ready for the washing, and in cleaning up when it is done.

Provide a good wash-room separate from the house, or if it is one of the rooms of the house, the door should

"Hard work brings health, and an ounce of health is worth a sack of diamonds."

open outside, on to the veranda, perhaps, so as to keep out the steam and washing odors. Then all the utensils can be kept in the wash-house where they will be handy and out of the way on other days of the week.

In English countries, even in very common tenement houses, such a wash-room is provided, having a copper boiler and small furnace built in with brick, and stationary tubs.

On the European continent it is becoming customary to provide public washing-houses, where, for a nominal sum, any housewife can go to do her family washing. Modern appliances are provided, and the work can be done there more cheaply and thoroughly than at home; besides, it avoids the steam and inconvenience of having the washing done in the house.

PROVIDE GOOD APPLIANCES

If means are too limited to furnish a house well at first, furnish the laundry and kitchen anyway; and then, having preserved your health and strength, you can save, and earn money for furnishing the other rooms of the house. Do not wash with a single tub, and that standing on a box too high or too low; and do not wring the clothes out by hand. If you do, you will pay a high price for your folly later on, out of your own strength and life. Get proper utensils, keep them in good condition, and they will pay you in labor-saving better than any other investment in your home.

THE MOST IMPORTANT ITEMS

Many conveniences for the washing might be mentioned, but we give a list of only such things as are most needed, and are within the reach of nearly all.

Two stationary tubs.

Two galvanized iron tubs.

Man wants but little here below,
Nor wants that little long.—Goldsmith

A first-class wringer.

Wash-board.

Large wash-boiler.

A good stove of some kind, unless you have a brick furnace with a copper boiler, built in, which is the best arrangement.

Two large clothes-baskets. If one person must carry them, and this is generally the case, it is best to have strong, round baskets with handles, as they are easier to get hold of, and will not crush together easily.

Plenty of clothes-pins.

A two-quart dipper with a long handle.

A ten-quart galvanized iron pail or bucket.

In a little cupboard, keep, ready for use, a supply of soap, washing fluid, stain eradicators, and the several other little things needed which are mentioned in the following suggestions. If these are prepared beforehand, and kept ready for use, much time and trouble will be saved on washing day; and this is the day when all the time is needed.

PREPARATIONS

Make all possible preparations the day before the washing. Do not bake and cook more than is necessary on washing day. Have two or three staple dishes prepared so that they can be heated, and set on quickly. Make the meals plain and simple. They ought to be so every day, but be sure that you have them as they ought to be this day at least, for you will need all your strength for the hard day's work.

On the evening before washing, gather up the clothes, and separate the colored from the white ones. Put the white clothes to soak in warm, soft, soapy water. Sal soda may be used in place of soap. Do not put stained

If it were well done when 'tis done, then 'twere well it were done quickly.—Shakespeare

clothes into soapy water, for the soap will "set" the stains. Remove all stains before putting the clothes to soak. Directions for this are given later in this section.

Separate the white clothes, and put them to soak in two or more tubs. Do not put the coarse with the fine nor the very dirty with the least dirty, for the dirt will soak out of the dirty clothes into the cleaner ones. Put the most soiled of each lot into the bottom of the tub.

WASHING DAY

Begin the washing early in the morning, and plan to get it out before the sun is high and the day hot. The washing that drags into the hot hours of the afternoon is the most trying to the strength and spirits.

BOILING THE CLOTHES

That the rules and plans of the washing day are time-honored by the practice of our mothers and grandmothers is not enough to recommend them to up-to-date housekeepers. Our mothers did their washings well, but the dear women sometimes worked harder than was necessary.

Scald the clothes before rubbing them, thus loosening the dirt, and saving time, strength, and unnecessary wear.

Build the fire and put on the boiler; cut into slices about two-thirds of a bar of soap, and dissolve it in a small basin of hot water on the stove, together with a lump of sal soda about the size of a hen's egg, and two tablespoonfuls of borax. The amount of sal soda required depends upon the hardness of the water. The sal soda will soften the water and loosen the dirt in the clothes. The borax will whiten the clothes. Pour the mixture into the boiler, which should be about two-thirds full of water, and fill it with the finest, cleanest clothes, and leave them to scald while you get breakfast.

"Life would be too smooth if it had no rubs in it."

The clothes should be put into the boiler while the water is cold, or only warm; hot water tends to set the dirt. Do not boil the clothes, for it makes them yellow and boils the dirt from one garment into another.

RUBBING THE CLOTHES

Take the clothes from the boiler, and put them into a good suds, already prepared in one of the tubs.

After scalding, clothes generally require very little rubbing; bands and very dirty spots will need attention.

SUDSING AND RINSING

Use plenty of water for rinsing, as the object of rinsing is to remove the suds from the clothes. Wring out as dry as possible. All the soap should be removed before the clothes are put into the bluing water, for the action of the soap and some kinds of bluing will rust them.

Shake the clothes out well and put them into the bluing water. Do not use too much bluing. Too often it is used to hide yellowness or dirt. Remember that yellow and blue make green, and you want your clothes white.

HANGING AND TAKING DOWN

"Clothes need to be dried quickly, if the best results from laundering are to be obtained. This is especially necessary if starched clothes are to retain their stiffness, and in the case of flannels to prevent shrinking. Before hanging the clothes out, if the clothes-line is a stationary one, it should be wiped with a clean cloth. It is best to hang pieces of the same kind together, fastening two pieces with one pin. Some laundresses seem to think that clothes may be hung up in any way—wrinkled or twisted—whereas, if snapped or shaken before hanging, they will dry more evenly, and if neatly folded when taken down, instead of

"He who would reap well must sow well."

being jammed into the basket, they can be ironed in one-half the time."

HANGING SHEETS, SPREADS, ETC.

The best way to hang sheets, spreads, table-cloths, etc., on the line is to fold them once, lengthwise, and place the corners over the line. Three or four clothes-pins should be used. When hung in this way they are not so liable to blow up over the line, and it is easy to take them from the line and fold, as they are already creased in the middle.

COLORED CLOTHES

Colored clothes and flannels should not be soaked or boiled; nor should soap be rubbed directly upon any article which will fade.

Prepare good, clean suds for washing the colored clothes. Too many people think that any dirty suds is "good enough," as the colored clothes do not show the grime like white ones; but the thrifty housewife who likes cleanliness for its own sake, will wash them in clean suds, and have a fresh rinsing water.

Any articles that are liable to fade in the sun should either be turned wrong side out or be hung in a shady place.

STARCHING

Pieces to be starched should be wrung as dry as possible from the bluing water. Starch at once and hang on the line where they will dry quickly. If the clothes are required to be very stiff, dry before starching. Do not starch clothes too stiff, for they muss and wrinkle more easily.

TO KEEP WOOLENS SOFT AND UNSHRUNKEN

It is not enough that all the conditions be just right for the proper washing of woolens; if the manipulation is wrong, they will shrink and become hard. Here is a

How wearily the grind of toil goes on
Where love is wanting.—Whittier

method which will keep your woolens in good condition:—

"Dissolve two tablespoonfuls of borax in a pint of boiling water; cut up half a pound of white soap, and put it with a gallon of hot water on the back of the stove, where it will dissolve slowly. Add the dissolved borax to this. Have two tubs half filled with water in which you can comfortably bear the hand. To one tub add a quart of soap mixture; to the second tub add a pint. Wash the garment in the first tub, sopping and squeezing but not rubbing. Press the suds out of the article, and then wash in the second tub. Rinse in clear water of the same temperature in which you did the washing. Pass the article through the wringer, shake well, and hang up to dry. If you have not a wringer, press as much water as possible from the garment, but do not wring it.

"When the article is nearly dry, take it in the house and press it; use a medium hot iron and have a piece of cheese-cloth between the woolen and the iron. Use a good deal of pressure.

"Ammonia may be substituted for the borax, and for very soiled garments it is better than borax. Add it directly to the water, about three tablespoonfuls to the first tub and one tablespoonful to the second tub. Wet only two or three articles at a time. Wash, rinse, and hang out as quickly as possible."—*Maria Parloa*

WASHING FLANNELS

"Shave a quarter of a pound of soap into a granite saucepan, add one quart of boiling water, stir over the fire until dissolved," writes Mrs. S. T. Rorer, in the *Ladies' Home Journal*. "Pour this into a tub half filled with water at a temperature of one hundred degrees Fahrenheit. Mix well. Have near the tub a pail of clear water the same temperature, into which put a half teaspoonful of house-

Our patience will achieve more than our force.
—Burke

hold ammonia. Take each piece of flannel singly and immerse it in the suds. Soap should never be rubbed on flannels, nor should flannels ever be rubbed on a board. Wash them by pressing and drawing through the hands, rubbing the soiled places quickly with the hands. Rinse at once in clear water, and wring by pressing one hand under the other, or through a wringer. Never twist in wringing. Shake well and hang to dry immediately; then proceed to wash the second piece. The flannels, when nearly dry, must be taken from the line and pressed with a hot iron. Be careful that it is not, however, too hot, or it will destroy the color. Flannels washed in this way will retain their soft texture and original size until completely worn out. No deviations from these directions, however, can be made. For colored flannels, make a suds as above. To the warm water for rinsing, add four tablespoonfuls of white vinegar, or a tiny bit of acetic acid which has been thoroughly dissolved. It is always well to wait for a bright day before washing flannels. They should be dried as quickly as possible."

The following helpful suggestions are taken from "Practical Housekeeping":—

"The usefulness of liquid ammonia is not as universally known among housewives as it deserves to be. If you add some of it to soap-suds, made of mild soap, it will prevent the flannel from becoming yellow or shrinking. It is the potash and soda contained in sharp soap which tends to color animal fibers yellow; the shrinking may also be partially due to this agency, but, above all, it is due to the exposure of the wet flannel to the extremes of low and high temperatures. Dipping it in boiling water or leaving it out in the rain will also cause it to shrink and become hard. To preserve their softness, flannels should be washed in tepid suds, rinsed in tepid

"Zeal without knowledge never accomplishes notable results."

water, and dried rapidly at a moderate heat. . . . The important thing in washing flannels is to have all waters of the same temperature. If you begin with cold, go through with cold; if with hot, have all equally hot."

WOOLEN BLANKETS

Soft water, if procurable, should by all means be used for washing woolen blankets. It is really a pity to have to wash them in hard water, even if it has been cleansed. Use a good quality of soap that has no resin in it, as this hardens the fibers of the wool.

Make a good suds of tepid water, into which put two or three heaping tablespoonfuls of powdered borax. Stir well till this is dissolved; then put in the blankets. Do not leave them to soak for a long time. Do not rub on a board unless very dirty; even then they may be washed in a pounding barrel. Rinse up and down in the tub, squeeze, and press, and rub dirty places between the hands.

When the blankets are clean, rinse thoroughly in two or three tepid waters. Care should be taken to have the washing and rinsing waters as nearly the same temperature as possible. Blankets should not be twisted. Fold and run them through a wringer, if you have one; if not, press the water out of them the best you can, and hang them over the line to drain. A good wringer is almost indispensable, especially in wringing heavy garments. If you must economize, do so in some other line.

Choose a sunny day, when the breeze is blowing, for washing blankets, as it is best for them to dry quickly. Drying them in the wind makes them soft and fluffy.

Never hang a woolen blanket or any other woolen garment out to freeze. If they must be washed on a very cold day, dry them in the house.

Iron with a moderately hot flat-iron when still damp.

The artist is he who strives to perfect his work; the artisan strives to get through it.—Gannett

TO CLEAN EIDERDOWN

This fabric may be washed in the same way as fine flannels. Make a strong suds of soap and warm water. Wash the garment in this, then wash in a weak suds, and finally rinse in warm water. When nearly dry, press on the wrong side. It will improve the garment to brush it with a stiff clothes-brush after it has been ironed, brushing it the way of the nap.

DRY-CLEANSING FOR WOOLEN GOODS

Hoods, nubias, scarfs, mittens, or any delicate woolen goods that you do not care to wet may be cleansed with flour. Place some in the oven and dry it thoroughly, then rub it into the article to be cleaned. If the article is much soiled, it may need to have the flour rubbed in and then shaken out several times. A little bluing powder added to the flour will increase the whiteness of the article. Shake well until all the flour is out, and the garment will be ready for use. Magnesia may be used in place of the flour.

WASHING LINEN

Into every ten gallons of water put a large handful of powdered borax; or before putting the boiler on the stove, put one teaspoonful of spirits of turpentine into the water. Either of these will help to make the linen white and clean.

BROWN LINEN

Brown linen may be kept bright, and made to look like new till nearly worn out, if washed as follows: Take a panful of timothy hay, cover it with water, and steep till the water is of a deep green color. Prepare a panful of flour starch, into which turn the hay-water. Place the goods in this preparation, and let soak for a few minutes; then wash. No soap will be required in this cleaning. Do not rinse after washing.

"Never trust to another what you should do yourself."

DRYING LINENS

A large manufacturer of linen goods says: "The proper way to dry linens is to hang the garments on the line dripping wet, without wringing at all. If dried in this way, the shrinkage will be so slight as to be almost unnoticeable."

EMBROIDERED LINENS

Do not wash your needlework with ordinary soap. Wash in a suds made of white castile soap, and while quite damp, iron on the wrong side upon a thickly padded ironing-board.

TO WASH FINE LACES

Make a warm suds of castile soap (or any other pure laundry soap), into which put a little borax. Allow the laces to soak in this for a few minutes; then shake about, and wash carefully with the hands, rinsing in two or three waters. To the last rinsing water add a little white sugar. Starch should never be used. Pull out well in shape, and place between clean, white cloths, and lay between the leaves of an old book, or where the pressure will be smooth and constant till dry.

Very delicate lace may be wound around a glass jar or bottle, then washed according to directions, leaving it on the glass jar until dry.

To color lace a cream shade, add a few drops of black coffee to the starch. To make the lace a greenish hue, use a little cold tea.

TO CLEANSE LACE VEILS, ETC.

Take equal parts of alcohol and soft water. Wash the lace by simply squeezing carefully in the hands. When clean, lay on a towel, smooth out carefully, and pin the edges down to the towel to dry. Borax may be used in the place of alcohol.

"Experience is good if not bought too dear."

AN OLD LACE MAKER'S WAY

"Here is a recipe for cleansing delicate laces, which an old lace maker who has woven many a gossamer web for the great connoisseur and lover of laces, Madame Modjeska, gave to her pupil and patron: Spread the lace out on paper, cover with calcined magnesia, place another paper over it, and put it away between the leaves of a book for two or three days. Then all it needs is a skilful little shake to scatter the powder, and its delicate threads are just as fresh and clean as when first woven."

ARTICLES THAT FADE

A little borax in the water in which scarlet or red articles are washed, will prevent the color from fading.

For washing pink or green calicoes, one or two tablespoonfuls of good vinegar to a pailful of water is very good.

Colored muslins should be washed in warm suds made with soft water and the best white laundry soap. Do not allow them to lie in the suds. If washing several pieces, change the suds as soon as it looks dirty. Rinse in two waters, putting a bit of bluing in the last one. Do not wring the material. Squeeze as dry as possible with the hands, and hang in a shady place to dry. Sunshine fades all colors.

For washing muslins having delicate colors, boil wheat bran in soft water. When cool, strain, and use this liquor in place of soap-suds. This will cleanse the article without removing the color. The clothes will not need rinsing in more than one water, and it will not be necessary to starch them. Never suds and rinse colored articles in warm water. Instead, have it as cold as possible.

If you wish to take the color entirely out of a garment that has become somewhat faded, boil it in cream

"Wives should feel that home is their place and their kingdom."

of tartar water. A perfectly white garment will be the result.

A teacupful of lye in a pailful of water will improve the color of black goods.

Wash pongee silk in a weak suds made of warm, soft water. Rinse, and iron while still damp or when dry. Never sprinkle, as this will cause the goods to spot.

Any silk goods can be washed in gasoline the same as in water. It does not change the color of the fabric or injure the goods, and gasoline easily removes the dirt.

SPRINKLING THE CLOTHES

If the sheets have been carefully folded when taken from the line, they will need no sprinkling. All bath towels may be folded, and laid away without sprinkling or ironing. They have a fresh, clean smell, and are much more enjoyable when used in this way. Turn all garments right side out before sprinkling. Some pieces will need much more dampening than others. Table-cloths, napkins, linen towels, handkerchiefs, and all starched articles should be thoroughly dampened, and rolled up tightly.

A small whisk broom is thought very convenient by many for sprinkling the clothes evenly and quickly. Lay a towel in the bottom of the basket, and pack the clothes in this as you roll them up. When they are all sprinkled, cover with a sheet, tucking it down well around the edges so the clothes will not dry out. Flannels, knitted cotton and woolen underwear, stockings, etc., should not be sprinkled

IRONING

Now comes the artistic part of laundering. Clothes may be beautifully washed, starched, and carefully sprinkled, but if they are poorly ironed, their appearance is spoiled, and many articles will be unfit for use.

Dionysius the elder, being asked whether he was at leisure, replied, "God forbid that it should ever befall me!"

Clean, smooth, hot flat-irons, of fairly good weight, are needed for ironing linen and starched goods. In ironing table-linen, special pains should be taken to have the table-cloths well stretched the last thing before ironing. Iron them double, being careful to have them folded evenly down the center, right side out. The linen should be pressed till thoroughly dry, which will make it glossy, and bring out the pattern plainly. Even coarse, thin, cotton table-cloths, if slightly starched and carefully and evenly ironed, make a very good appearance. Do not fold table-linen or napkins more than is necessary. Carefully iron the hems, fold right side out, and be sure that the edges are all even.

Calicoes should be ironed on the wrong side, as it gives them a fresher, newer appearance.

All heavy, twilled goods, that are starched, show the pattern much better if ironed on the wrong side. Press seams and hems till well dried.

TO LAUNDER THIN SUMMER DRESSES

It is a simple matter to "do up" the thin summer gowns so as to retain their delicate coloring; and the labor is well repaid. Do not use soap or hot water. Before washing remove all ribbons or velvet garniture, except where the dress is trimmed with flat bands of wash ribbon. Place in a small tub sufficient water to cover the goods. Have the water just warm, and add to every gallon a half pint of gasoline. Into this place the goods, and, with the hands, squeeze and press until all the soil is removed. Rinse in several clear waters; lastly pass through water tinged with wash blue, and run through a wringer. Mix two tablespoonfuls of cold-water starch in a quart of lukewarm water. Dip the gowns in this, press out as much moisture as possible, and roll in a large cloth. Let

"Courage, conduct, and perseverance conquer all before them."

lie one hour, then press with hot irons until dry. All light, thin wash goods will look as crisp and clean as when new, if treated in this manner. Always remember to exercise great care when using gasoline freely.

UNSTARCHED LACE

To iron unstarched lace, place it right side down upon a pad or ironing-board covered with several thicknesses of white flannel. Over it spread carefully a damp cloth, and press with a hot iron until the cloth is thoroughly dry.

WASHING CHINA SILK

When a garment made of china silk is to be laundered, wash it, starch in a very thin starch, and iron when damp.

WASHING CHAMOIS LEATHER

When washing chamois leather, rinse it in soapy water, and when dry, it will be soft and fresh.

SCORCHED LINENS

If unfortunate enough to scorch any article, when ironing, lay it in the bright sunshine, and if not too badly scorched, the marks will entirely disappear.

Badly scorched linens may be improved if not entirely restored by following these directions: Take two ounces of fuller's earth, half a pint of vinegar, half an ounce of fine white soap, and the juice extracted from two good-sized onions by squeezing and pounding them. Boil well together. When cool, spread this over the scorched spot on the linen and leave it to dry. Then wash and boil the garment, and if it was not so badly burned as to break the threads, the scorch will have entirely disappeared.

TO MARK LINEN

Stiffen with cold starch a space just large enough to take the name, thus making the fabric like paper to write upon. After writing, press with a hot iron.

"He that aims for perfectness in a trifle is trying to do that trifle holily."

LAUNDRY STARCH

Secure the best laundry starch. Dissolve in a bit of cold water a sufficient quantity for your washing. Have a kettle of boiling hot water ready, and turn into this mixture, stirring briskly that no lumps may form. It is well to set the dish containing the starch on the range for a few minutes, to insure the starch being well cooked, stirring in the meantime, so it will not scorch on the bottom. Cook in a bright tin or enameled vessel.

While the starch is still hot on the stove, drop into it a lump of alum about the size of the end of your thumb for each two quarts. Garments starched with this will keep clean much longer, and your flat-iron will never stick.

A tablespoonful of turpentine to a quart of starch also gives an added whiteness and luster to the ironed articles.

A tablespoonful of powdered borax dissolved in a little warm water (or the same water in which the starch is dissolved) added to a pan of starch, helps to stiffen the clothes, and also prevents the irons from sticking. This starch is very satisfactory.

If none of the articles mentioned above are at hand, add to a quart of starch a small piece of butter or other grease, or a teaspoonful of kerosene, to prevent sticking.

FLOUR STARCH

For colored clothes, flour starch is preferred by many, as it makes the clothes stiffer, and they retain their stiffness for a longer time.

Place on the stove a clean pan or kettle containing sufficient water to make the starch. For each quart of water, use about three tablespoonfuls of flour which has previously been made smooth in a little water. Turn this into the boiling water slowly, and stir constantly until it is

"A bad workman quarrels with his tools."

well cooked, so it will not settle. Let it stand on the stove and cook slowly for at least ten minutes, otherwise it may be sticky.

A little borax, turpentine, kerosene oil, or grease of some kind should be added to this, as to the laundry starch, to prevent the irons from sticking.

After it is well cooked, strain it through some coarse cloth, to remove lumps.

When making starch for light-colored clothes, use soapy water; it will give them a glossy appearance and keep the irons from sticking.

WASHING FLUIDS

To make good washing fluid, take one pound each of potash lye, washing soda, and borax, and mix together in an enameled pan containing four quarts of boiling water. When cold, add to this mixture one pint of ammonia, and pour into glass jars or an earthen jug. About half a cupful of this fluid will be enough for a common-sized washing.

A very good fluid may also be made of equal parts of sal soda and concentrated lye. Dissolve separately one pound of each in two quarts of water. Mix and bottle as above. As soon as thoroughly dissolved and mixed it is ready for use. About half a teacupful of this fluid will be sufficient for a boiler full of clothes. Put into the water before it is hot, and stir well before putting the clothes in. Add about half this amount to each additional boiler full of clothes.

THE VALUE OF BORAX

Borax is almost indispensable in washing and ironing, in fact, in nearly all departments of housework. In many ways it effects a considerable saving. In washing, for instance, nearly one-half may be saved in soap by the

If you would be wealthy, think of saving as well as of getting.—Benjamin Franklin

use of a handful of borax to each ten gallons of water, and it is better than soap to whiten the clothes.

PEARLINE

The *Scientific American* is authority for the statement that pearline, soapine, and many other such washing powders are made from about equal parts of powdered soap and sal soda. If this be true, quite a saving may be effected by those who wish to make the compound themselves.

SOFT SOAP MADE FROM CONCENTRATED LYE

Dissolve one pound of concentrated lye in about two gallons of soft water. Allow this to come to a boil, then add four pounds of tallow or any other clean, clear grease. Boil until the grease is dissolved; then add two gallons more of hot water. Stir well, and when it is cold, add as much cold water as it will take and still be as thick as desired.

TO CLEANSE HARD WATER

Take one pound of borax, one pound of sal soda, and half a pound of stone lime. Boil in two gallons of water for about two hours, then allow it to stand until it settles. Pour off the clear water carefully from the top, and put into a jug or into glass jars. From a half cup to a cupful of this liquid will be required to each ten gallons of water for washing or other ordinary purposes. The amount must be gaged by the hardness of the water. A little careful experimenting will lead to the right result.

TO CLEAN FLAT-IRONS

If flat-irons are rusty or sticky with starch, when they are almost hot enough to use, place a handful of salt on a piece of paper or cloth, and rub them briskly over it. Have a piece of beeswax, sperm candle, or paraffine, wrapped

"'Tis harder to unlearn than to learn."

in a cloth, lying on the end of the ironing-board; and as you take each iron off from the stove, rub it quickly over this, and then on a clean cloth. This will keep the iron from sticking, and will add a glossy luster to the garments.

CLEANING THE WRINGER

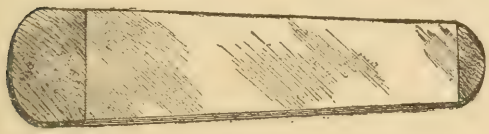
If the rollers of the wringer look dingy after wringing the colored clothes, rub them with a soft cloth, saturated with kerosene, gasoline, or paraffine oil. Any one of these will remove all color from the rollers, leaving them clean and white.

CARE OF TUBS AND BOILER

When the washing is finished, wash the tubs and boiler, and dry them thoroughly before putting away. This will prevent rusting, and they will always be clean and ready for use.

DRESSING THE IRONING-BOARD

First get a good board to dress. There are many elaborate kinds, some of which are very good. We will describe only the most simple, which all can have. Get a clear, well-seasoned board an inch and a quarter thick, eighteen inches wide, and five and one-half feet long. Taper the board to ten or twelve inches in width, at the small end, and bore a hole in the large end to hang it up by. Pad it with two or three thicknesses of an old woolen blanket, if you have one, or use canton flannel. Fasten around this a strong sheet of muslin. Lay the muslin on straight and smooth, and tack it to the edges of the



Ironing-Board

Home is the grandest of all institutions.
—Spurgeon

board. Leave the large end of the board bare, giving room (twelve inches will be enough) for the flat-iron stand, wax, paper, and cleaning cloth. The surface of the board should be kept level. If the board begins to warp, reverse the padding, and use the other side.

HOME

A man can build a mansion,
And furnish it throughout;
A man can build a palace,
With lofty walls and stout;
A man can build a temple,
With high and spacious dome;
But no man in the world can build
That precious thing called Home.

It is a happy faculty
Of women far and wide,
To turn a cot or palace
Into something else beside,
Where brothers, sons, and husbands, tired,
With willing footsteps come,
A place of rest, where love abounds,
A perfect kingdom—Home.

—Christian Intelligencer



BLUING

Spots of bluing may be removed from garments with alcohol. Wood alcohol will do for this purpose, and is not expensive.

MILDEW

1. Soap the stains well, rub on plenty of powdered chalk, then place the article in the sun. Sometimes it may be necessary to make more than one application.

2. Another good way: Soak the mildewed spots in a weak solution of chloride of lime; then place in the sun for a short time, after which rinse thoroughly in cold water.

3. Take common soft soap, and stir in quite a bit of salt, so the soap will crumble or grain, as it were. Rub on the spot, and lay out overnight. If not effaced by morning, wet with water occasionally during the day.

4. Mildew may also be removed from cotton or linen with soft soap and lemon juice. Mix the two together, cover the spots well on both sides, and lay in the sun until the spots disappear.

5. Another simple method is to soak the cloth in buttermilk for a short time, and place in the hot sun.

GRASS STAINS

There are several agencies that will remove grass stains.

1. Alcohol is good for fine fabrics, but it sometimes affects delicate colors.

2. Cover the spots with thick molasses, and place in the hamper, and the stain will all come out in the wash.

3. Saturate the spot with kerosene oil, roll up for a few minutes, and then wash in the usual way.

Blessed be drudgery,—the secret of all culture.
—Gannett

IRON RUST

1. Saturate the spot with lemon or lime juice, then soap thoroughly, sprinkle on plenty of salt, and lay in the sun to bleach. When the article dries, if the stain is not removed, repeat the operation. This is a sure eradicator. If the sun is not shining, wet the spot with lemon juice and hold over a steaming hot teakettle.

2. Dissolve one-half ounce of citric acid in two-thirds of a cupful of water. Bottle, and it is ready for use when needed. Saturate the stain with the solution, place the article in the sunshine for two or three hours, and the stain will disappear. This is also good for removing fruit stains from table linens. It will not injure any fabric.

FRUIT STAINS

1. Powdered starch, if applied at once, and allowed to remain for a few hours, will remove almost any fruit stain from wash goods. The discoloration passes into the starch.

2. Saturate fruit-stained spots with alcohol before sending them to the laundry.

3. Another simple method is to stretch the stained spot over a basin and slowly pour boiling water through it. This will remove most stains if done before washing. If fruit stains are old, "tie up a little cream of tartar in the places, put into cold water and bring to a boil."

4. Woolens or colored cotton goods stained with fruit or wine should be wet with alcohol and ammonia, then sponged carefully with alcohol only. If the material will bear it, wash afterward with soap, in tepid water.

STAINS ON TABLE LINEN

Look over your linen carefully, marking every stain with a piece of colored silk or pin so that no spots may be missed. Place some milk in a basin, and after removing the

"Saying and doing are two different things."

mark, rub each stain in it. The smaller and more delicate stains disappear at once. Large spots that have been neglected for several days will prove more stubborn; but continue the dipping, rubbing, and squeezing, and it will leave the fabric perfectly white. If the milk becomes discolored, change it. This process will completely remove stains of fruits, vegetables, or drinks.

CHOCOLATE AND COCOA STAINS

When boiling water fails, these stains may be removed from cotton or linen goods with oxalic acid. Lay the stained portion on a plate, and pour on a little of the acid, hot. Rub carefully with a soft brush until the stain disappears. Then rinse in plenty of cold water, and afterward in ammonia water, to neutralize the acid. Use one teaspoonful of ammonia to a quart of water.

SOOT STAINS

Rub the spots with dry corn-meal before sending to the laundry.

BLOOD STAINS

Here are several recipes for removing blood stains:—

1. Saturate with kerosene oil, let it stand a few moments, and then wash with cold water.

2. Soak in cold salt water; then wash in warm water with plenty of soap; afterward boil. If the blood stains are old, use iodide of potassium diluted with four times its weight in water.

3. Apply a strong solution of borax. This may be used on dainty silk gowns, either black or white.

4. Wet some laundry starch with cold water, making a paste the consistency of thick cream, and spread it on the stain. At the end of six hours brush off. If any trace of the stain remains, repeat the operation.

God helps them that help themselves.
—Benjamin Franklin

INK STAINS

1. If possible, sponge the spots immediately with cold water, then with sweet milk. Change the sponging cloth as often as it becomes discolored, and continue the process till the spot is removed. If the spot is on goods which can not be washed, after removing the ink stain with milk and water, sponge thoroughly with gasoline. Do not use near a fire.

2. Soak in sour milk. If a dark stain remains, rinse in a weak solution of chloride of lime.

3. If the stains are on white material, they may be removed by oxalic acid. Dissolve a teaspoonful in a pint of hot water. Rub the stains well with this, and rinse with hot water. This should be repeated till the stains are removed. This process will prove successful even if the article has been washed several times.

4. For fine fabrics, use lemon juice and salt, mixed; rub in well, and lay in the sun for several hours. Wash in the usual way.

5. Red ink stains may be removed from wash goods by covering the stained spots, as soon as possible, with melted tallow. Do not disturb for forty-eight hours, then wash without soap in very hot rain-water. Afterward the garment may be washed as usual.

IODINE STAINS

1. Wash with alcohol or ammonia, then rinse in soapy water.

2. Soak the stained article in sweet milk for two or three hours, rubbing frequently.

MUD STAINS

If they can not be removed by washing, soak the stained portion in oxalic-acid water for a few minutes, then rinse in clear water, and finally in ammonia water.

"The disciples of a patient Saviour should be patient themselves."

GREASE SPOTS

1. If the grease spot is from sewing-machine oil, wash with soap in cold water. Hot water is liable to make the stain permanent.

2. If the stain is an old one, rub with lard, and let stand for a few hours before washing with the cold water and soap; or tepid rain-water with baking-soda may be used.

3. A common grease spot, if fixed by long standing, may be removed with naphtha, ether, or chloroform. But be careful, as they are highly explosive.

WHEEL GREASE AND TAR

1. Rub a little butter, lard, or other fresh fat on the stains; dip the end of a soft nail-brush in cold water; rub the brush on a cake of soap; then rub the spot carefully with the brush. Continue this process until the stain is removed. Then rinse with clear water, still using the brush. Sop dry with cheese-cloth.

2. After softening with the grease, clean with turpentine.

"If so unfortunate as to get wheel grease on your dress, no matter how delicate the texture, rub the soiled places well with magnesia, covering them entirely, then hang the gown away for a day or two, after which it should be thoroughly brushed and rubbed well with a flannel cloth to remove the powder, and no trace of the grease will remain."—*Good Housekeeping*

FOR ALL STAINS ON WHITE GOODS

To remove stains from white goods, dissolve a rounded tablespoonful of chloride of lime in an eight-quart pail of water conveniently full. Put the stained article to soak in this water until the stain disappears, squeezing it through the hand occasionally.

To lay the firm foundation in ourselves, or even to win success in life, we must be drudges.—Gannett

RECIPE FOR MAKING JAVELLE WATER

To make a quantity, dissolve four pounds of bicarbonate of soda in one gallon of boiling water; then stir in one pound of chloride of lime. When cool, strain and bottle. Javelle water will remove almost any stain from white goods. All acids and alkalies tend to eat the fiber, so use quickly and rinse thoroughly.

ANOTHER GOOD RENOVATOR

One of the best and most economical of the various fluids for removing spots from fast-colored fabrics is said to have originated in the English navy, and is in general use among both soldiers and sailors:—

Cut four ounces of castile soap into a quart of soft water, and heat it until the soap is melted. Remove from the fire, and add two quarts of cold soft water. When the liquid is quite cold, pour into it four ounces of ammonia, two of alcohol, and two of ether. Bottle and cork tightly. When it is desired to remove grease spots or thoroughly to renovate a garment, shake the liquid well, apply with a sponge or cloth, and rinse with clear water. When fast-colored dress-goods are to be washed, add a cupful of the fluid to a pailful of soft water, soak the garments in this water for a few minutes, wash them out, and rinse thoroughly.



ECONOMY

People who have plenty of money, and do not care to bother with clothes cleaning, can either give their old clothing away, or throw it away when it becomes soiled; but most people need to keep their clothes as long as there is substantial wear in them, and a big bill of expense is saved by knowing how to do the cleaning and pressing at home. With the aid of the few following suggestions, and by keeping on hand the necessary materials, all the clothes cleaning can be done with little expense.

A pad of blotting paper or absorbent cotton should be placed under articles of one thickness before attempting to remove a stain. This will absorb the moisture and prevent the ring or halo so often formed when cleaning garments.

Use a piece of the same material as the garment if possible for rubbing it, except in case of delicate silk, then a piece of white flannel is better.

GENTLEMEN'S WOOLEN CLOTHES

Hang the suit of clothes on the line, and beat thoroughly; then brush vigorously. Take the articles, one at a time, on the ironing-board, and clean the greasy collar and remove spots. (See page 171.) Heat a flat-iron (heavy ones are best for this purpose). Smooth out a small section of the garment at a time on the board. Take a cloth that will not lint, dip it in water, wring as dry as possible, and then lay over the part stretched out on the board. Always keep a wet section of the towel between the iron and the garment. Press only a very small

"The gate of heaven to each soul lies in trying to do his work perfectly."

surface at a time. After each pressure with the iron, lift the towel quickly, allowing the steam to escape. This process lifts the nap on the goods, removes the gloss, and gives the garment a fresh, new appearance. Take special pains with the collar of the coat, and the front around the buttons, and the pockets.

HOW TO CREASE TROUSERS

If you wish the trousers creased, lay the leg flat, with the two seams precisely together, and press.

"In pressing trousers, to take out the 'knees,' turn wrong side out, spread flat, moisten the knees thoroughly with a sponge, and press each leg carefully with a hot iron. Then turn the garment, fold with long seams on the legs exactly together, cover with a damp towel, and press each leg separately, making the folds in front and back which rejoice the eyes of our boys."

HOW TO FOLD A MAN'S COAT

To fold a man's coat, lay it out perfectly flat with the wrong side down; the sleeves should be spread out smoothly, and then folded back to the elbow until each end of the sleeve is even with the collar. Fold the revers back, and then double the coat over, folding it directly in the center seam and smoothing it out carefully so that there may be no wrinkles. The coat is then ready to place in the trunk or on the closet shelf. Unless space is limited. do not fold the tails when folding a coat.

RESTORING A CRUSHED HAT

"If you are ever unfortunate enough to smash a new derby hat so it cracks, and, in spite of vigorous rubbing and brushing, refuses to resume its pristine smoothness of surface, try the simple expedient of holding a lighted match inside the hat, close to the broken spot. By the

time the match has half burned out, you will find that the hat has become soft. If you will then brush it vigorously with a stiff brush for a moment, it will regain its former smoothness and look as if nothing had ever marred it."

LADIES' WOOL DRESS-GOODS

All wool dress-goods should be cleaned the same as gentlemen's suits.

BLACK TAFFETA

Brush thoroughly with a soft brush, pin down smoothly to a padded ironing-board, and sponge with the following solution: Two quarts of cold, strong, black coffee and one tablespoonful of ammonia.

Turn the taffeta and repeat the process; rub dry with a clean, soft cloth. Be careful not to leave too much of the solution in the drying process, as it is liable to stiffen the silk. Use an old stocking for sponging. This solution will also clean colored taffeta.

LIGHT SILK GOODS

In removing a spot from silk goods, do not make an attack directly upon the spot. If the silk is light colored, stretch a piece of thin white woolen cloth over the end of the finger, dip lightly in gasoline, and begin rubbing about six inches from the spot, and work quickly around it in circular sweeps, drawing in gradually to the stain, which will quickly yield to gentle, steady rubbing. This gradual approach to the stain will prevent the appearance of the circle which is so often seen on a garment after cleaning. This precaution should be taken in cleaning all goods.

TO FRESHEN BLACK SATIN AND TAFFETA

Sponge with a cupful of strong black or green tea, and a teaspoonful of ammonia. Press on the wrong side with a damp cloth.

"Nothing is easy to the unwilling."

TO REMOVE GLOSS FROM BLACK GARMENTS

Shake and brush free from dust; then sponge with ammonia water. Dry quickly.

SILK, CASHMERE, AND BLACK ALPACA DRESSES

Dissolve a tablespoonful of powdered borax in one quart of warm, soft water. After dusting thoroughly, brush such parts as need it, or the whole, if much worn, with the solution, and iron on the wrong side.

PLUSH AND VELVET

Among the best agents for cleaning these fabrics are turpentine and alcohol. Nothing should be used that will mat the pile. Place the surface to be cleaned on a board, and sponge with one of the fluids named; then rub briskly with a clean, dry cloth. When the material is cleaned, steam it to raise the pile. To do this, have a very hot iron. Put the iron on its side, and cover it with several thicknesses of old cotton or woolen cloths made very wet. Pass the back of the velvet over this, holding it close to the cloth until the velvet looks thick and fluffy. If you wish to stiffen the back of the velvet, put it face down on a clean board, and tack it so that it will lie perfectly straight. Dissolve one-fourth of an ounce of gum arabic in a gill of water, and apply this stiffening to the back. When dry, remove the velvet from the board, and brush the pile.

VELVET

If the velvet has become spotted by wetting, hold the wrong side over steam, and, while damp, draw it quickly over a warm iron.

BLACK LACE

To restore the color of black lace, grown rusty, use a strong solution of vinegar and water. Rinse in coffee, and,

"A work well begun is half ended."

while still damp, lay a piece of flannel over it, and press with a flat-iron.

SPOTS ON WOOLEN GARMENTS

In cleaning greasy coat collars or in removing spots from woolen garments, instead of using a cloth, which requires much rubbing to avoid leaving a halo, use a brush. An old tooth-brush is good. Dip it into naphtha until thoroughly saturated, then give the spots a few brisk strokes, and they will depart. Even delicate velvet can be cleaned in this way without injury.

A mixture that will remove grease from the finest fabrics without injuring them may be made from one quart of rain-water, two ounces of ammonia, one teaspoonful of saltpeter, and one ounce of shaving soap cut up fine. Put a pad of absorbent cotton or blotting paper under the spot in the garment when rubbing it.

TO CLEAN A STRAW HAT

A paste made of lemon juice and sulphur will clean and remove almost any stain from a white straw hat.

CLEANING RIBBONS

To clean ribbons, dip them in naphtha or gasoline—always being careful not to be near an open flame—and shake and dry in the open air. Usually ribbons do not require ironing. If they are wrinkled, place them under a piece of muslin and press with a hot iron. Clean black ribbons by sponging with a mixture of one-third alcohol and two-thirds water. When partly dry, iron them under a piece of black crinoline.

PAINT SPOTS

To remove paint from a garment, first spread a ring of dry starch around the stained spot to prevent the cleaning fluid and the paint from spreading into the surround-

ing material. Saturate the spot with clear turpentine. After a few moments repeat the wetting, and then, with the edge of a dull knife, scrape off as much of the paint as possible. Sponge with a cloth saturated with the turpentine, and when the spot is removed, dry with a clean cloth. If the color has been affected, sponge with chloroform. Hang the garment in the open air, and the turpentine smell will soon disappear.

If the paint stains are old, first cover the spot with some olive-oil or butter, then cleanse with chloroform.

SILK, LINEN, ETC.

Paint, pitch, or oil may be removed from these fabrics by a solution made from benzine and the oil of lemon. Take four ounces of benzine, and one-half ounce of the oil of lemon; mix thoroughly, and apply to the spot, rubbing gently but briskly until removed. This will not remove the color from the material.

PRINTER'S INK

If the ink spot is not of too long standing, it may be removed simply with turpentine. Saturate the spot, and allow it to stand for two or three hours; then rub well with the hands, and brush thoroughly. If it is an old spot, it may be necessary to use the erasive compound or soap for cleaning clothes, described on page 174.

FRUIT STAINS

Fruit or wine stains may be removed from silk, woolen, or cotton goods by sponging with ammonia and alcohol. Finish the sponging with clear alcohol.

TO CLEAN WHITE FUR

1. Put a small quantity of white corn-meal into an earthen or enamel dish; heat as hot as your hand can bear; then place the article to be cleaned into the dish,

"Impatient people water their miseries and hoe up their comforts."

and rub with the hands till thoroughly clean. Shake out the meal, beating it if necessary. If other articles are to be cleaned, reheat the meal.

2. Equal parts of flour and salt, heated, may also be used for the same purpose. Rub the mixture down into the roots of the fur, and allow to remain for several hours. Then shake thoroughly, and the fur should be clean.

3. Light fur may also be cleaned by rubbing with bran moistened with warm water. Rub the fur until dry; then rub with dry bran. Rub against the way of the fur. After finishing with the bran, rub with magnesia.

INK STAINS

Ink stains may be removed from light goods by dampening the heads of matches and rubbing them on the ink spot until it disappears.

KID GLOVES

1. Kid gloves may be washed in dry Indian meal. Some use the meal alone, others mix in it a little soap powder. If the gloves are much soiled, the latter is better.

2. Put enough purified benzine in a dish to cover the gloves. Place the gloves in it, and wet thoroughly. Then place the glove upon a smooth board, rub with a soft sponge or brush—one way only. Dip the gloves or the sponge into benzine as many times as may be necessary to remove the dirt. If the gloves are much soiled, rinse in fresh benzine till perfectly clean. Immediately after this cleaning, white gloves will look as if they were spoiled, but when dry, they will look almost as well as new. Partly dry them in the sun, then with a stick which has been carefully tapered and rounded at one end to resemble the finger, shape each of the fingers till well smoothed. When the glove is smooth and dry, use a piece of soft, white flannel to polish with white powder.

Blessed be drudgery,—the one thing that we can not spare.—Gannett

To keep them from shrinking, put them on the hands occasionally while drying. If benzine is not at hand, gasoline will do the work, but the odor will remain longer. Remember to do all this work as far as possible from any fire.

BLACK KID GLOVES

When black kid gloves are soiled, or from wear have white spots on them, apply black ink to the spots, then with a piece of flannel rub over them some salad oil or sweet oil to which have been added a few drops of ink. Dry in the sun, and polish on the hand with a piece of soft flannel.

KID SHOES

White and black kid shoes may be cleaned in the same way as kid gloves.

ERASIVE COMPOUND, OR SOAP, FOR CLEANING CLOTHES

Sal soda, one-fourth pound; castile soap, one ounce; soft water, one quart. Directions: Boil the soap in the water till dissolved; then add the other ingredients, all pulverized; stir until all is dissolved. Pour into a square pan, or box, to cool, when it can be cut into bars of suitable size to wrap up for sale or future use. When used for removing grease spots, paint, tar, etc., apply with a wet sponge by rubbing on the soap first, then on the spot till clean.

This is said to be equal to the "Lightning Eradicators," which are generally sold for twenty-five cents a cake. —*Chase*



IN SEASON

The sun is bright, the air is clear,
The darting swallows soar and sing,
And from the stately elms I hear
The bluebird prophesying spring.

—*Longfellow*

When the winter months, and the cold and storms are past, and reviving nature, with her soft breezes, spring showers, and sunshine, seems trying to clear away the dirt and litter of winter and give to Mother Earth a clean, new dress, the tidy housekeeper feels that it is time to turn her attention to house cleaning. Although she has done her best during the routine of the long winter months, there is much that needs attention at this season.

SYSTEMATIC WORK

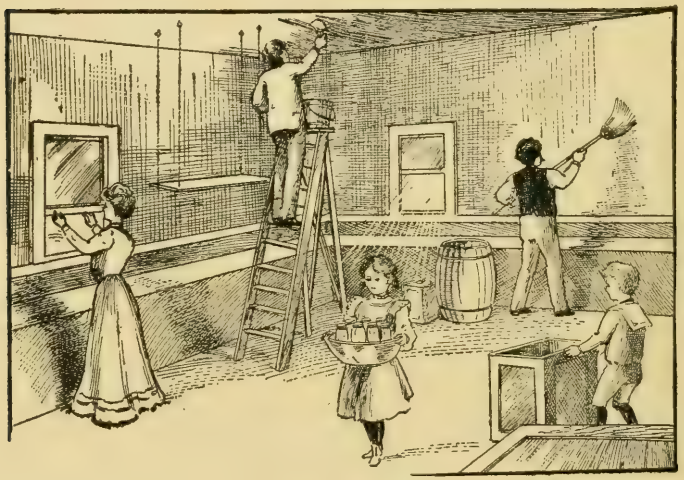
Go about the work systematically. It is not necessary to have every room in the house in disorder at once. One or two rooms may be cleaned at a time. This is the season for making repairs, papering, tinting, whitewashing, painting, etc. The plumbing should be examined, and the sink, toilet, and other water fixtures and pipes should be thoroughly cleaned and disinfected.

CELLAR

Give special attention to the cellar. This is particularly necessary in cold countries where it has been practically closed up all winter, and has been made a storehouse for vegetables, fruit, and other supplies. It will now need a thorough renovation. Open it up and let in the fresh air and sunshine. Sweep down the walls, clean out the vege-

Thus saith the Lord, Set thine house in order.
—Bible

table bins, and clear off the shelves. Whitewash the ceiling, and scrub down the walls with water containing some good disinfectant. Wash the dust from the empty fruit-jars that have been accumulating during the winter, and



Cleaning the Cellar

arrange them in order on the clean shelves, ready for the next fruit-canning season.

WOOD-SHED

It is more than likely that the wood-shed has been a handy dumping-place during the winter. In any case, it needs a thorough cleaning up, and unless more than usual care has been taken during the winter, there is sure to be a cleaning out of musty old refuse which might cause trouble if not disposed of before the warm summer weather.

All of the splinters and dirt from the wood and coal should be raked up and burned. If there is no floor, lime should be sprinkled on the ground after the raking.

"Content lodges oftener in cottages than in palaces."

YARD

The yard should be cleaned at the same time as the cellar and wood-shed. It ought to receive attention before the regular house cleaning is done, so that litter, dirt, and dust may not be tracked back into the clean rooms.

First, the yard should be thoroughly raked and cleared



Cleaning the Yard

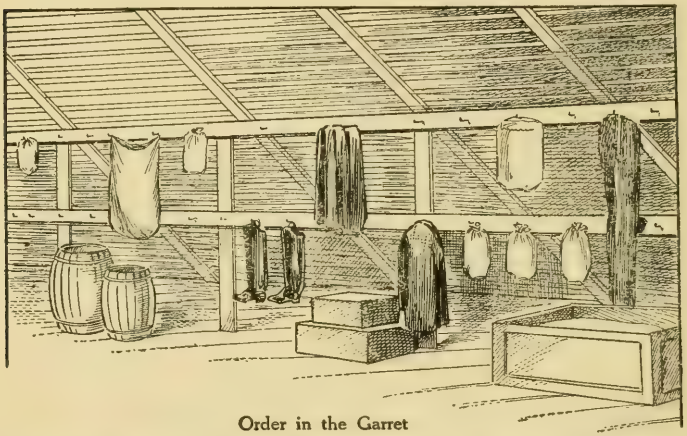
up. The dead grass and leaves should be raked together and burned, to give place for the fresh shoots that will spring forth with the return of the warm spring rains and sunshine. When the cellar, wood-shed, and yard are cleaned, the house cleaning is fairly begun.

GARRET

The cleaning of the rooms should begin at the top of the house, otherwise the lower rooms would need cleaning a second time. The garret will prove to be a veritable Pandora's box. Worn-out clothing and rags, old papers

"A home should be a Bethel, not a Babel."

and magazines, boxes, and odds and ends of everything have been accumulating. Put up strips of boards containing plenty of nails or hooks so that all articles worth preserving can be hung up. Sort the old clothing and rags. Those that are good for carpet-rags can be preserved in



Order in the Garret

paper bags, and hung up out of the way of moths, and the balance sold to the rag man. Make a general clearing out of all that is worthless, burning what can not be utilized or sold.

Brush the walls, clean the windows, and mop the floor. If signs of moths or other pests appear, they should be attended to. See "Pests," page 197. As you come down, clean the steps, thus leaving everything clean behind you.

BEDROOMS

Next in order are the bedrooms. Take down the bed, and put the bedding and mattresses out in the air and sunshine; move the furniture out of the room to a convenient place; take down the pictures and ornaments, clean and put them away from the dust in a safe place; take

"Not how much talent have I, but how much will to use the talent that I have, is the main question."

up the rugs and carpet, and hang them on the line to be cleaned. This should be done by beating, then sweeping with a broom. After beating and sweeping on one side, turn the carpet and repeat the process, then leave them on the line for a time to sun and air.

Sweep up the loose dirt on the floor, then with your cloth-covered broom sweep down the walls. Wash the windows and woodwork and mop the floor. If the woodwork is finished in hard oil or varnish, it can be easily and nicely cleaned with very thin starch water, which leaves the woodwork glossy. To make the starch water, boil a little starch the same as for laundry use, and put in water enough to make it very thin. Never put soap or any strong alkali on a varnished surface unless you wish to remove the varnish. As soon as the floor is dry, put down the carpet or rugs, and replace the furniture. See that every article is thoroughly cleaned and dusted before returning it to the room.

Clothes closets should be thoroughly renovated at the same time.

When all the upper rooms are finished, clean the hall and stairway; then all is ready for the rooms below.

LIVING-ROOMS

The parlor should be the first of the living-rooms to be cleaned. The pictures and bric-a-brac should be carefully taken down, given a thorough cleaning, and removed to another room. Remove the furniture. The upholstery should be brushed, cleaned, and well aired. Look for moths, and if any traces of them are found, they should be destroyed.

This same thorough system should be continued through the living-rooms. As each room is cleaned, return the furniture, and keep it closed while cleaning other rooms.

"Defer not till to-morrow what may be done to-day."

KITCHEN AND PANTRY

The work of cleaning the kitchen and pantry is quite tedious, particularly if they have been in any way neglected. The pantry is the place where dirt is liable to accumulate and where unsanitary conditions are most likely to exist. If the walls and all the shelves and cupboards have been well painted or varnished, as they should be, the cleaning will not be so difficult. Every article should be moved, and the walls, shelves, cupboards, and dishes not in every-day use should be thoroughly cleaned. Every unnecessary or worthless article should be disposed of, and, if necessary, the walls and woodwork should have a fresh coat of paint.



Painting Pantry Shelves

REPAIRS

As the rooms are thus cleaned, one by one, the necessary repairs should be made while each room is empty. Repairs should first be made in the plaster; then, after thoroughly cleaning the room and allowing the dust to settle, the necessary painting or varnishing should be done. This should be allowed to thoroughly dry before the carpets and other furnishings are put in place.

FOR WASHING PAINT

A useful preparation for washing paint is made as follows:—

"Love makes labor light."

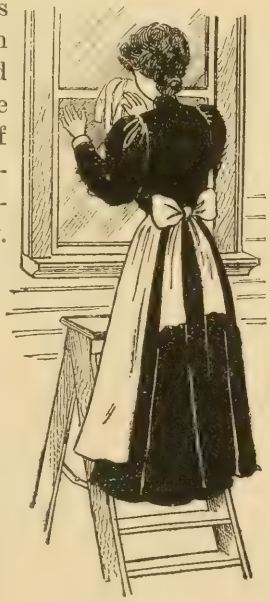
Dissolve in a bucketful of water four tablespoonfuls of soda and an equal quantity of soft soap and turpentine. Apply this to the dirty paint with a flannel, wipe dry, and then rub with a leather. This method leaves a nice, glossy appearance on the paint.



The Hard Way

CLEANING WINDOWS

If you wish to get a clear view of the world outside, keep your windows clean. In these days of energetic, resourceful housewives, many ways have been suggested that make this part of house cleaning comparatively easy. Windows will probably require cleaning several times during the year if they are kept clear and bright.



The Better Way

Every housekeeper should be supplied with a light step-ladder. This is needed when cleaning windows or walls, and when hanging pictures, curtains, etc.

A tablespoonful of ammonia in about a pint of warm water is very good for removing specks and dirt. The cloth used should not be very wet when applied to the windows, as, in drying, it will

Patience is better than wisdom; an ounce of wisdom is worth a pound of brains.—John Ploughman

make more work to prevent streaks. If but little water is used, they can be easily dried and polished with any soft paper. Some use chamois skin for this purpose, and it is very good, being free from lint.

A tablespoonful of borax in a quart of water, as previously suggested, is also a good cleaner.

Whiting is always a "standby" for window cleaning. Apply with a damp cloth. It will remove the specks, and when wiped off with a piece of cloth, chamois, or paper, will leave the glass polished and clear.

Kerosene or gasoline is good for cleaning windows, especially in cold weather. Apply clear with a piece of cloth, and polish with newspaper or chamois or a flat rubber window cleaner. In cold weather the windows may be kept clear and free from frost by rubbing them with kerosene oil or glycerine.

TO REMOVE PAINT FROM WINDOWS

Dissolve a tablespoonful of sal soda in a pint of warm water. If the water is very hard and the paint is dry, use a little more of the soda. Apply this with a cloth fastened to the end of a stick, as the soda will roughen the hands. When the paint is softened, wash off with warm water, dry, and polish.

Turpentine, if applied clear, with a cloth, and left for a little time, will soften the paint so it can be easily washed off.

MIRRORS

Mirrors should never be placed where the sun can shine directly upon them, for it injures the quicksilver and gives to the glass a milky appearance which can never be wholly removed. Therefore when arranging the furniture, select a place for the mirror where it will not be injured by the sunshine. If possible, it should be placed where the angle of reflection will throw the light directly upon the face.

Attempt the end and never stand to doubt;
Nothing's so hard but search will find it out.—Herrick

CLEANING GLASS

1. Under ordinary circumstances, when not very dirty, the mirror may be cleaned by wiping it with a damp cloth and polishing it with a dry one. As a finishing touch, polish it by rubbing briskly with a piece of soft paper. If very dirty, rub the glass with a cloth dampened with ammonia or kerosene. This is very good for removing specks and spots.

2. Dip a damp cloth into whiting and rub the glass with it; then polish with a dry cloth that will not lint, or with a piece of soft paper. This method is recommended when the glass is very dirty or covered with specks that are difficult to remove.

3. Fine results may also be easily obtained by applying a mixture of thin cold starch, then rubbing dry with a chamois skin or piece of cloth that does not lint.

REPAIRING AND CLEANING WALLS

Mix plaster of Paris and water to the consistency of soft putty, fill the holes and cracks, and smooth with a case-knife. Mix but little at a time, as it "sets" quickly. Work rapidly while using it. After it becomes hard, it is worthless. Fine white sand may be mixed with it if desired.

TO CLEAN VERY DIRTY SURFACES

For very dirty surfaces, put into a bowl half a pint of encaustic, and beat into this half a pint of turpentine. Take a little of the preparation on a piece of old cloth, and rub on the soiled parts. Rub quite hard; change the cloth when it is very much soiled. When the entire surface is clean, rub hard with a clean, dry, woolen cloth. This will give a high polish. If you do not wish the high polish, rub the cleansed surface with a cloth wet with turpentine.

Cleanliness is the elegance of the poor.
—English Proverb

HOW TO MAKE ENCAUSTIC

Cut into small bits one pound of beeswax and four ounces of laundry soap. Put this in a kettle with five quarts of boiling water. Place on the fire and stir frequently until all is dissolved, then add two ounces of sal soda. Take from the fire and stir frequently while cooling. Keep covered in stone or glass jars. This preparation will keep for years, and may be used to clean and polish marble tiles, floors, and all wood finishes.—*Ladies' Home Journal*

SMOKE ON CALCIMINED WALLS

Smoke on calcimined walls may be removed by rubbing the soiled places lightly with stale bread, changing the pieces as soon as they become soiled. This may make the spot a little lighter than the surrounding surface, in which case pass a piece of cheese-cloth lightly over the wall, working toward and over the light part, as this will take a little of the color over and shade up the light spots so that it will not be noticeable.

THE REWARD

If the house cleaning is done systematically, taking only one or two rooms at a time, without trying to hurry the work or undertake too much, it may be accomplished without severely taxing the strength of the housekeeper. And when the work is finished, and she feels assured that from cellar to garret her castle is clean, and fresh, and orderly, and free from unsanitary conditions, she is many times repaid for her hard work, and will be able to keep her house better through the long summer months, because she started right. And it may be that her joy in a clean, sweet home will prompt her to keep it orderly and sanitary all the year.



PROMPT ATTENTION

A few simple recipes and suggestions will enable the housekeeper to clean and repair most articles of furniture, thus saving time and expense. There is an important advantage in keeping polishes and eradicators on hand, for then stains can be removed when they are made, and the furniture brightened up, thus saving much unnecessary work and damage from delay. By prompt attention, the furniture can be kept bright and clean all the time, when otherwise a stain would be allowed to remain rather than to go to the expense of having it taken to a repair shop and removed by a professional cleaner.

GOOD FURNITURE POLISH

1. Put into a bottle in the order named: One gill each of powdered rottenstone, cold-drawn linseed oil, turpentine, naphtha, a strong solution of oxalic acid, half a gill of alcohol, and one gill of water to which has been gradually added one tablespoonful of sulphuric acid. Shake the bottle and pour a little of the mixture on a piece of felt. Rub the soiled surface with this, using a circular motion, and rubbing lightly but quickly. Finish by rubbing with soft old linen. Keep the bottle well corked and in a cool place.

2. A good polish for mahogany furniture may be made by dissolving beeswax in spirits of turpentine. Add a little burnt sienna and umber to color the preparation. Apply with a soft rag in the usual way.

WHITE SPOTS

For white spots on furniture, rub with camphor until the color is restored.

Arise, therefore, and be doing, and the Lord be with thee.
1 Chronicles 22: 16

TO CLEAN HIGHLY POLISHED FURNITURE

The simplest method is to go over the surface with a cloth wet with paraffine oil and let it dry for an hour or more. This will soften the dirt and will fill all scratches with oil, thus preventing the water from reaching the wood. After the dirt is softened, wash the surface with soap and water, applied with a soft cloth, using castile or some other mild soap. Rub very dry, and then wipe with a soft cloth wet with turpentine and paraffine oil. Let this dry for a short time, then polish with a soft cloth. When a surface is much marred, or extremely dirty, it will be well to omit the washing and, instead, clean the surface with powdered rottenstone and oil. Wipe clean and finish with the paraffine oil and turpentine.

TO REMOVE OLD VARNISH BEFORE REDRESSING

To sandpaper varnished furniture is a tedious task. A much quicker and more satisfactory way of removing varnish and paint is to scrub the surface with a strong solution of sal soda. To each pint of water add enough common washing soda to equal the bulk of a hen's egg; heat it, and apply while warm. If the varnished surface be moistened with this, and let stand a few moments, it can be cleaned off easily with a scrubbing brush.

All foreign material will thus be removed from the wood, and it will be just as it was turned out from the mill. Rinse off with clear water. When dry, it may be revarnished, stained, or painted. One advantage of this method is that it leaves the edges clear cut, instead of uneven and blunt as does the sandpaper.

TO CLEAN MARBLE

1. Mix two parts of powdered whiting with one part of powdered bluing and half a pint of soap-suds, and

"For after all, the true pleasures of home are not without, but within."

heat to the boiling-point; while still hot, apply with a soft cloth to the discolored marble, and allow to remain there until quite dry; then wash off with hot water in which a little salts of lemon has been dissolved. Dry with a piece of soft flannel.

2. To clean smoke from marble over the fireplace or elsewhere, brush the surface with a paste made of chloride of lime and water.

3. Stains may be removed from marble by applying a paste made of two parts of baking soda, one part of pumice-stone, and one part of finely powdered chalk, mixed, sifted through a fine sieve, and made into a paste with water. When the stains have disappeared, wash with soap and water.

FOR CLEANING GILT FRAMES

To about a pint of soft water add enough sulphur flour to give a rich golden color. Boil in this three good-sized onions which have been well bruised. When cold, strain, apply with a soft brush, and your gilding will look like new.

Fly specks may be removed from gilt frames by dipping a soft camel's-hair brush in alcohol and applying it to the spots.

CLEANING BRASS

The following recipe for cleaning brass is, according to the *Ladies' Home Journal,* used in the United States Arsenals:—

"Take one part of nitric acid to one-half part of sulphuric acid. Keep the mixture in a stone jar. When about to use, have ready a pailful of water and a boxful of sawdust. Articles to be cleaned must first be dipped in the acid, then in the water, and dried with the sawdust. This process will change the brass at once to a brilliant color. If

Surmounted difficulties not only teach, but hearten us in our future struggles.—Sharpe

the metal is greasy—as candlesticks would be—dip first in a strong solution of potash and soda in warm water. This cuts the grease and permits the acid to act."

TO REMOVE STAINS FROM MAHOGANY

Mix spirits of salts, one part, with salts of lemon, one part. Drop a little on the stains, and rub briskly till they are eradicated.

WILLOW FURNITURE

Willow furniture may be cleaned with salt and water, applied with a stiff brush, or by rubbing damp salt into all the curved crooks and crevices.

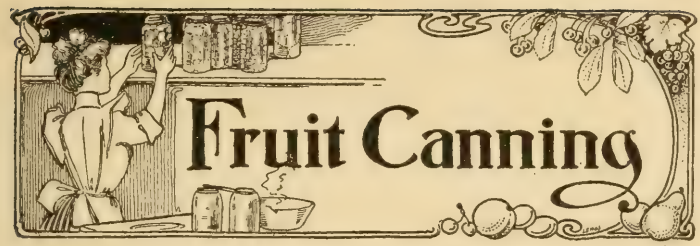
PLASTER CASTS

Make a thin paste of cold water and fuller's earth, and spread it on the statue, using a soft brush. Fill a tub with soap-suds, and wash the statue in this. Rinse quickly, and dry with a sponge or soft cloth. All the work must be done speedily and carefully.

Or, cover the cast with a thick layer of starch which has been moistened with milk. After a few days rub the starch off.

BRASS BEDSTEADS

Brass bedsteads may be polished with sweet-oil and whiting, or sweet-oil and finely powdered tripoli. Scouring soaps should never be used on them. Wet the whiting or tripoli with the oil, spread a little on a piece of an old felt hat, or a piece of soft flannel; rub the soiled brass with this. Next, dip a soft cloth in dry whiting and go over the brass, rubbing briskly. Finish by polishing with a piece of chamois or soft, old linen. A bedstead should keep clean many months after such a treatment. A little rubbing occasionally with a piece of chamois will, as a rule, keep a brass bed bright and clean.



MOTHER NATURE'S GOOD METHOD

The first canned fruit was put up by nature. The best housekeeper that ever lived can not approach Mother Nature in the matter of canning fruit. Every ripe apple, or plum, or peach, or cherry is a perfect little can of fruit, closed and sealed, air-tight and water-proof. Each can is labeled by its form and color. What a beautiful storehouse every orchard is!—*Rossiter*

PERFECT FRUIT

Only the best flavored, most perfect fruit should be selected for canning. It is not wholesome if either too green or too ripe. Fruit should be left on the trees until nearly ripe enough to eat fresh. If too green, it is hard and acid, and requires a large quantity of cane sugar. If overripe, it is soft and tasteless. It is a serious mistake to try to can partially decayed fruit. It does not keep well, and is not wholesome.

PREPARATION OF FRUIT

If possible, fruit should be canned the same day it is picked. Fruit that has been kept several days is difficult to preserve on account of accumulations of active germ life.

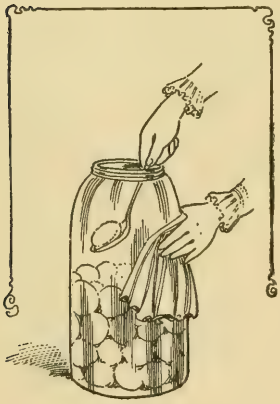
Great care should be taken in its preparation. Decayed and other imperfect spots should be carefully trimmed away. The skins should be removed from most fruits, like apples, peaches, apricots, and plums, for the skins contain a large part of the most unpleasant acid. Nearly all stone fruits are improved by removing the pits. Acid fruits are usually discolored by paring with a steel knife. This result may be avoided by using a silver knife.

Economy is in itself a great revenue.
—Cicero

PREPARATION OF JARS

For home fruit canning only glass jars or bottles should be used; and the jars should always be of the best quality. Fruit nicely put up in glass jars is an ornament to a cellar or storeroom, and, if her work has been skilfully done, the housekeeper may very properly take pride in a large supply.

The jars and covers should be thoroughly washed before using. They should also be sterilized by heating in an oven or by boiling for a few minutes, especially so if they are dirty and sour through not having received proper care when they were emptied and put away. To sterilize, place the cans in the water or oven when cool, and allow them to warm gradually to avoid breaking.



Filling the Jars

COOKING FRUIT

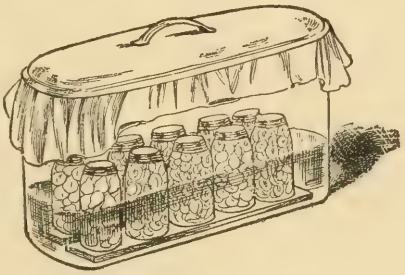
There are many good methods for cooking fruit and placing it in the jars, but some of them are so laborious as to make fruit-canning a dread to housewives who have not learned an easier way. In this brief chapter, only one method will be described, which applies equally well to nearly all fruits, and is generally recognized by successful fruit canners as the easiest and most successful method.

When the fruit is pared and ready for cooking, place it in the jars as compactly as possible, as it shrinks in cooking. Place the covers loosely on the jars. If there is a large amount of fruit to can, place a galvanized wash-tub on the stove for cooking. This will hold from fourteen to eighteen two-quart jars. Or a boiler

"The more you know, the more you can save yourself and that which belongs to you, and do more work with less effort."

may be used, which will hold seven or eight jars. The process of cooking in a boiler is illustrated in the cut below.

Lay thin pieces of boards in the bottom for the cans to rest on, and put in enough water so that it will come up about half way on the jars. The water may be warm, but not hot, when the jars are placed in it. When all is ready, cover tightly, using a thick cloth, if necessary, to keep the steam in, and it will soon boil over a good fire. After it reaches the boiling-point, the fruit should be left to cook from thirty minutes to an hour, according to the kind and ripeness of the fruit.



Cooking in the Jars

While the fruit is cooking, prepare a syrup to fill up the jars, and have it boiling hot when the fruit is cooked, ready to be taken out. Unless the fruit is very acid, one cup of sugar to a one-quart jar of fruit is an abundance. One will soon learn how to judge the amount of syrup to prepare, and if there should not be quite enough to fill the jars, fill them up with boiling water. If it is desired to can the fruit without sugar, all that is necessary is to fill the jars with boiling water when the fruit is cooked.

Do not allow a draught of air to strike the jars when removing them from the water, as it is almost sure to crack them. After taking them from the water, allow them to stand a few minutes to settle. Remove the covers, put on the rubbers (these should not be put on when the fruit is put on to cook, as it will injure the rubber), fill with boiling syrup or water, seal immediately, and turn bottom

Tact, carefulness, and perseverance in any occupation bring satisfactory results.

up to cool. If no juice leaks out, they are perfectly sealed. After a few hours they should be placed right side up in a cool place. Most fruit keeps best in the dark.



The Sealing Test

The various kinds of berries and small fruits may be canned in the same way.

This method is particularly good for tomatoes, although, of course, no sugar should be used, but a little salt instead. If they are well pressed into the jar, only a little filling will be required after they are cooked. For this purpose a few tomatoes may be cooked in a saucepan.

FIGS

It is generally believed that figs must be made rich like preserves or they are unfit for use. This is a mistake. But this is one kind of fruit that is best cooked in a saucepan. They need more sugar than most other fruits to make them palatable. The sugar should be added when they are placed on the stove to cook; they need to cook slowly for several hours, and should then be placed in jars the same as any other fruit. Figs are much better if peeled before canning. A few slices of lemon cooked with the fruit improves the flavor.

TO PREVENT JARS FROM CRACKING

To prevent the cracking of glass fruit-jars or jelly glasses when pouring boiling fruit or jelly into them, stand the jar on a steel or silver knife blade, or place a silver spoon in the jar while filling. No other precaution is necessary except to avoid draughts of air when filling.

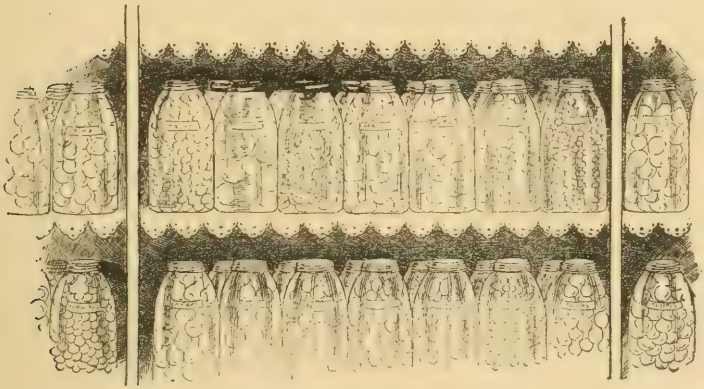
Your care to trifles give,
Else you may die ere you have learned to live.—Young

GENERAL SUGGESTIONS

When cooking fruit, use only graniteware or porcelain-lined kettles. All metals are liable to be dangerously attacked by acids.

The filling of jars may be greatly expedited by the use of a grocer's funnel and a small milk dipper.

To remove the skins from tomatoes, plums apricots, etc.,



Labeled and Arranged Orderly

place them in boiling water long enough so the skins will slip off easily. If the fruit is large and perfect, it is sometimes less trouble to remove the peeling with a knife.

If any kind of fruit happens to burn on the bottom of the saucepan, set it immediately in a dish of hot water, and if not badly burned, the flavor will be unimpaired.

Canned fruit should be examined occasionally to see if it is keeping well. If mold appears on the top of the fruit, the jar should be opened, the mold removed, and the fruit heated and used.

Hold a piece of sandpaper in the hand when screwing the lids on glass jars; this will prevent slipping, and the

No gain is so certain as that which proceeds from the economical use of what you have.—Latin Proverb

jar can be more tightly sealed. Heavy gloves are also convenient. Or a damp cloth will do very well.

To open a jar easily, insert the point of a knife under the edge of the cover to admit the air.

When the edge of a fruit-jar cover is turned up so as not to "bite" into the rubber, do not throw it away. Screw it on as usual, and with the edge or handle of a stout knife press it down all around.

When canning fruits, be very careful that no seeds rest between the rubbers and the covers, as they allow the air to enter the jars, and the fruit is soon spoiled.

UNFERMENTED GRAPE JUICE

Choose ripe Concord or other suitable grapes, and remove the stems and any imperfect fruit that may be found. Then place in a wooden bowl, and mash well with a potato masher. Put a small quantity at a time into a jelly bag, and press out all the juice, or pass through a fruit press; then strain the liquid through flannel. Pour the liquid into bottles until they are nearly full. Then cork tightly, and stand in an upright position in a wash-boiler, the bottom of which has been covered with slats. Wrap each bottle in a cloth. Pour in cold water to within an inch of the corks, and stand the boiler over the fire. Let heat slowly, and note the time at which the water begins to boil. Let boil for twenty minutes, remove from the fire, and allow the liquid to become cold in the water. Store in a cool place, laying the bottles on their sides.

ANOTHER GOOD RECIPE

Take fresh, well-ripened, dark, juicy grapes, such as the Black Prince or Concord, pick from the stems, rejecting all that are imperfect; wash well, and put to cook in an enameled saucepan, with a pint of water for each three quarts of grapes. Cook slowly for half an hour, or until

the grapes burst open; then drain off the juice through a jelly bag, filtering the skins and seeds through a separate bag. Reheat, add one-half cup of sugar to a quart of juice if desired to sweeten, and can in jars the same as fruit; or, cork at once with good, solid corks; cut off the corks close to the bottle, and seal over with sealing-wax. Bottle the juice from the skins separately, as it will be less clear. Keep in a cool, dark place, and do not move about unnecessarily.—*"A Friend in the Kitchen"*

HIGH-GRADE WINE

To make the most perfect grape wine is a painstaking process. Mr. L. A. Scott, of Fresno, California, has given years of scientific study to the art, with results that have been a great satisfaction to sanitariums on the Pacific Coast which have used his products. He kindly permits us to use his best recipe:—

Select the best quality of evenly ripened grapes. Wash and look over carefully to remove dirt and imperfect fruit. Handle in wooden, porcelain, or enameled vessels. Tin or iron should not be used for acid fruits or fruit juices.

Crush thoroughly by some process which will not smash the seeds or lacerate the skins unnecessarily, as bitter, unpleasant tastes in wine usually come from the seeds or skins of the grapes. For crushing large quantities, a device may be made which will pass the grapes between rubber rollers.

Put the crushed fruit in vessels covered with two or three thicknesses of cheese-cloth which will admit the air, but keep out the dust, and let stand for thirty-six to forty-eight hours, according to the condition of the fruit and the temperature. It must not be allowed to ferment.

Press out the juice, and heat at a temperature of one hundred fifty to one hundred sixty degrees, and skim.

Do the duty which lies nearest thee.—Carlyle

Pour into settling vats, and let stand for forty-eight hours in a cool place.

Draw off from the settlings very carefully, and heat again to a temperature of 150 to 160 degrees, and seal up in bottles.

SEALING-WAX FOR FRUIT-JARS

Best orange (gum) shellac and beeswax, each one pound; rosin, four pounds. Melt and dip or paint the corks with a brush. May be made any color desired. For bright red, add vermilion.—*Chase*

AN ACROSTIC

T-he Home; the Home, what place so sweet?
H-eaven's first glad blessing to our race,
E-re sin came in with cursed feet,—

H-er watchword, misery and disgrace,—
O-r ere earth's sons had learned to roam,
M-ercy provided them a home.
E-'en thus it is when far away,
M-ankind to it with longing turns,
A-mid the clouds of sorrow's day,
K-eeps thus the wolves of grief at bay.
E-arth holds no sweeter, dearer spot,—
R-emember, O forget it not.

—*Mrs. L. D. Avery-Stuttle*



VIGILANCE

To keep the house clean and wholesome it must be kept free from pests, and this means watchfulness and intelligent warfare every day. This is particularly true in warm climates where vermin and rodents thrive and multiply the year round. But even under the most unfavorable conditions these noisome plagues can be kept out of the home. To give up the battle means to turn the house over to filth and disease, and submit to the daily destruction and annoyance of rats and mice, cockroaches and moths, ants and flies, mosquitoes and fleas, etc., etc.

HOMES BUILT FOR THEM

It would seem that some homes were built with the definite purpose of accommodating rats and mice in particular, and other annoyances in general. The writer has known experienced carpenters to put in the plates and sills of a cottage so that mice and rats or even a small cat could run at will from the cellar to the garret inside the walls. With thoughtless disregard of bugs and fleas, the walls are not plastered down to the floor. A space is left so that when the base-board is put on, insects can live in the walls and find ready access to all the rooms, and easy escape beyond the reach of ordinary efforts to exterminate them.

Among the worst styles of such houses are those built with board partitions, covered with cloth and paper. Such houses can defy the efforts of the most thrifty housewife to keep them clean.

When building a house, the greatest care should be taken to give all points of advantage to the housekeeper;

"Of all studies, study your present condition."

for the ever-invading pests are sufficiently difficult to keep in check, even at the best.

DIRT AND RUBBISH

Pests are always found among evidences of shiftlessness. These are some of their common haunts and breeding-places:—

Old, dirty carpets.
Rubbish-filled wood-boxes.
Dark corners in cupboards.
Stow-away places in pantries.
Behind immovable meal bins.
In damp, musty places.
In dark clothes-presses.
Inside of boxed-in water fixtures.
Among the boxes and cases of the cellar.
In the rubbish of the attic.
Behind paper on board partitions.
In cracks everywhere.
Under the barns.
In the rubbish cans.
In stagnant pools and uncovered water tubs.
In every dirty, dark, cluttered, unwholesome place about the premises.

FLIES

In nearly all countries the house-fly is the most common pest,—so common, in fact, that the majority of people have come to look upon them with quite a degree of toleration, and forget that they are among the most filthy intruders of a would-be wholesome home. They keep bad company and visit the vilest places. They feast and walk upon decaying refuse, rotting carrion, and upon the excreta of the barns and privy vaults they hold high carnival; and

"One hour to-day is worth two to-morrow."

then, with their dirty feet, loaded with deadly germs, they visit the houses, and walk upon the dishes, the food, and our faces, leaving their germs and spots wherever they go.

REMOVE ATTRACTIONS

The first step that should be taken in getting rid of flies is to remove every kind of attraction which might draw them near the house. If refuse from the house is allowed to stand about the back door, if vegetable trimmings and other garbage are thrown out upon the ground, or if decaying matter of any kind is tolerated about the premises, the flies are sure to be there. The first step is to clean up.

SCREENS

But the dirty fly is so common and intrusive that the cleaning up alone will not banish him; even the heat and smell of food within will attract him to the doors and windows, and as these must be kept open, more or less, for ventilation, they should be provided with screens so that it will not be necessary to keep the house shut up simply to keep out flies. It is a good thing also to screen in the back verandas, where much of the kitchen work is done. It is a great convenience to have free access from the kitchen to the veranda without being obliged to fight away the flies.

TRAPS

Even with these precautions, flies will get inside, and some other means must be taken to keep the house free from them.

There are numerous little fly-traps which are more or less familiar to every one. Here is a good old-fashioned one:—

Take a glass of water, and put over it a slice of bread; cover the under side of the bread with molasses, and make

The mother of mischief is no bigger than a midge's wing.—Scotch Proverb

a small hole in the center; in a short time the flies will all go through the hole and not come back again.

It is claimed that castor beans, planted near the doors and windows, will keep away flies and mosquitoes. The remedy is inexpensive and very decorative, and it will do no harm to try it.

Two or three sheets of tanglefoot fly-paper will pick them up in a few hours.

Did you ever wonder why there are no flies around soda fountains, where one would expect them by the millions? It is because there is essence of sassafras scattered about to keep them away. A few drops of the oil will drive them out of the house.

MOSQUITOES

"The mosquito is more than an irritating nuisance, keeping us screened and indoors on summer days and evenings when we should be enjoying beautiful America outdoors. It is now no longer a question, but a demonstrated certainty, that malaria is carried solely by the mosquito bite. Likewise, its hateful forms of ague, chills and fever, breakbone and intermittent fevers all come to us through the mosquito bite. Worse yet, yellow fever is carried by a tropical member of the mosquito family. Thus the mosquito is no longer a pest to be laughed at, nor a simple irritant to be endured; its presence about our houses becomes a serious menace to health. Hence it behooves each one of us to see that mosquitoes have no chance to breed in or near our houses. A little care and watchfulness on the part of each of us, and we need not have a single mosquito near our homes the entire summer, save for the comparatively rare visitations of the salt-marsh species, which may annoy, when the wind is favorable, communities living fifty or sixty miles from the seacoast.

An enterprise when fairly once begun,
Should not be left till all that ought is won.—Shakespeare

"Thousands of dollars will be added in value to the house properties in any locality freed from these dangerous, annoying, and unnecessary pests. There is, thus, every reason, for sanitation, comfort, and economics, for fighting mosquitoes."

THE HABITS OF THE MOSQUITO

"All mosquitoes breed in stagnant water. From seven to twenty days are required to produce a brood of a hundredfold or more—from eggs, to winged, biting insects. A mosquito a day old is full grown. Females three days old may lay eggs. Most kinds breed within a very short distance of the scene of their biting activities—frequently within the house itself. The few species that fly far mostly breed in salt marshes by the seacoast. These are not the malarial mosquitoes, nor do they enter the houses to bite or breed. The malarial mosquitoes *(Anopheles)* are the most dangerous domestic mosquitoes, and breed in any puddle or receptacle of water that stands for a week or two. These pests do not travel far; six hundred yards is the limit. Some of them will bite in the daytime. The common house mosquitoes—and among these are the malarial carriers—are the most abundant, and they enter houses to breed, if possible. They will 'hibernate' in a dark cellar, ready to breed in the first spoonful of available water in April or May.



Stagnant Water



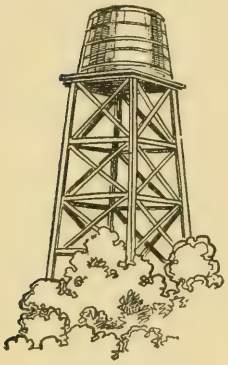
The Prospect



A Prolific Crop

"Anything that hurts the home is a curse, and ought to be hunted down."

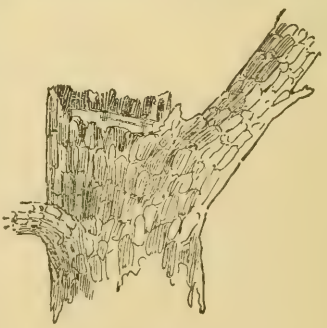
"Therefore most of the trouble is from 'skeeters' that breed close by our houses, and therefore often within our own control. If carefully done, one season's effort will almost entirely rid a neighborhood of mosquitoes and make easier work for the next year."



In Water Tanks

WHEN YOU RID YOUR OWN PLACE

"Once you rid your own place of receptacles that hold stagnant water, if you still have mosquitoes, be sure that your neighbor has not done as you have done. Get him to follow your example, and then look around the neighborhood for a swamp, a sluggish brook, or a pond. These suspicious places may be treated with kerosene, which should be applied so that the entire surface is covered with an oil film; when the film is broken, the protection is inefficient, as any opening will allow the tiny wigglers room to breathe. Put the kerosene on with a watering pot having a fine rose, or use a syringe with a fine rose. There is also a preparation in the open market called phinotas oil that is good, and which is free from some of the objections of kerosene. Then, too, small fish, like 'killies' or 'minnows,' from half an inch to four inches in length, can be put into the water. These are voracious eaters of mosquito larvæ in all the stages. Goldfish are good for fountains. Remember,



In Hollow Trees

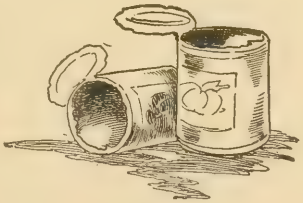
Nature when she adds difficulties, adds brains.
—Emerson

however, that mosquitoes do not breed in open, deep water; but only on the edge of ponds or in still eddies of running brooks. So do not waste your kerosene on deep running water, though it is necessary to protect the deep water in rain barrels or cisterns. Also, do not mix fish and kerosene—use one or the other, not both in the same pond."

WHERE TO LOOK FOR MOSQUITOES

"If you are troubled with mosquitoes, the kind that are dangerous, remember that somewhere within six hundred yards of your house you will find the female mosquito laying her eggs in some one of these stagnant-water places:—

"In some place of standing water.
"In a cesspool.
"A sewer-inlet.
"A rain-water barrel.
"A horse-trough.
"A roof gutter that is clogged.
"A broken bottle.
"An old tin can.
"Broken crockery that holds water.
"A water-pan for dog, cat, or chickens.
"A water receptacle for a grindstone.
"A hole in a tree.
"A watering-pan for birds.
"A garden fountain.


In Empty Cans

"Any place where water stands for five days or more. One tomato can in a shady spot, with water in it, has been found to breed sufficient mosquitoes to keep a family unhappy all summer. It is not true that mosquitoes breed

Things don't turn up in this world until somebody turns them up.—Garfield

in vines or grass. The female must have stagnant water in which to deposit her eggs.

HOW TO GET RID OF MOSQUITOES

"Clean out every place where water stands.

"Dispose of old tin cans, bottles, or what not, so that rain can not possibly be retained.



Uncovered Rain-Barrels

"Watch your roof gutters.

"Empty your rain barrels of water every week, or screen them closely with fine-meshed wire on top.

"Change the water every day in a drinking-pan for dog, cat, poultry, or bird.

"Watch the watering-trough near your stable.

"Fill holes in a tree with soil packed tight, or with cement.

"In other words, get rid of, or coat with kerosene, all stagnant, standing water, and you will get rid of mosquitoes.

"If you have a playing fountain, put little fish, like minnows or goldfish, in the water and they will eat the mosquito larvæ.

"If you have a sluggish brook or a stagnant pond near your house, spray kerosene or coal-oil on the surface; this makes it impossible for the 'wigglers' to breathe when they come to the surface, and they die. The coal-oil application is only necessary at the edges, and is good only so long as the oil film is unbroken.

"Patience is a plaster for all sores."

"If you want to interest your neighbor or your community in this work, get into touch with the American Mosquito Extermination Society, which is doing most excellent work on a large scale. A line to its secretary, Henry Clay Weeks, at Bayside, Long Island, New York, will bring a response to any one who wants to exterminate the mosquito in a community or in a neighborhood."—*J. Horace McFarland, President of the American Civic Associaton, in Ladies' Home Journal, June, 1905*

A CRUSADE IN HAVANA

Mosquitoes have been eradicated from Havana by drainage of damp places, removal of receptacles for standing water that otherwise might be a breeding-place for the pest. Adult mosquitoes in rooms or buildings were destroyed by formaldehyde, or by the fumes of burning sulphur, or burning pyrethrum powder. This warfare has destroyed all kinds of mosquitoes, especially the stegomyia mosquito, that is the sole agent by which yellow fever is transmitted. In consequence, this dread disease has also been stamped out. Since it has been demonstrated that another kind of mosquito, very common in this country, transmits malaria, and that other diseases may be carried by these pests, it behooves every one to join in a grand war of extermination against the mosquito by the simple means that have accomplished such wonders at Havana. In many places in America a similar campaign has been waged, with an astonishing decrease of the mosquito pest.

SCREENS

As in the case of flies, it is also necessary to screen against mosquitoes, even when every other preventive measure has been taken. The wire screen used for this purpose is often too coarse. In the evening when the doors and

Burn not your house to fright away mice.
—Spurgeon

windows are open, and a light is burning inside, many of the smaller ones will work their way through a number twelve mesh. Number sixteen will shut the little fellows out. In hot countries, where fevers are prevalent, mosquitoes are a menace to life and health, and it is necessary as an added precaution to screen the beds.

PENNYROYAL AND QUASSIA CHIPS

If mosquitoes are troublesome in the sleeping-room, uncork a bottle of the oil of pennyroyal, and they will leave in haste; or, put in each window a saucer containing water and a pinch of quassia chips. Renew about twice a week. This remedy is clean, non-poisonous, and economical, and is a sure preventive.

RATS AND MICE

1. Clean up their hiding-places so they can not find a corner for quiet breeding.

2. If you like a cat, get a good one; take proper care of her, and she will do the work.

3. Traps baited with toasted cheese will soon clean them out, if followed up closely.

4. Buy five cents' worth of calomel at the drug-store; spread bread with butter, and then spread calomel on the butter; put it, with a dish of water, in the rats' runway. They will disappear in a few days.

5. Take equal quantities of corn-meal, or rye-meal, and unslacked, finely powdered lime. Mix well without wetting, and place on pieces of boards. Put water in a flat dish near by. They will eat the mixture readily, and soon become thirsty, drink the water, which slacks the lime, and the gas destroys them quickly.

6. Mix equal parts of brown sugar, corn-meal, and plaster of Paris, and place this compound where they

"Give advice to all, but be security for none."

can eat it. After moistening by eating, the plaster sets or hardens in the stomach and kills the rat.

7. Catch one rat alive, cover it with oil of phosphorus and set free. Being luminous in the dark, it will frighten away all its companions. This has been tried with great success.

8. If rats enter the cellar, a little powdered potash thrown into their holes, or mixed with meal and scattered in their runways, will drive them away.

9. A mouse hole can be effectually stopped by pasting over it a cloth freely sprinkled with red pepper.

MOTHS

Moths work only in the dark. If the clothes-press can be lighted with a window, much trouble from this pest will be averted.

1. To get rid of moths in closets, bureau drawers, trunks, etc., remove the contents and thoroughly freshen by airing, then fumigate with burned vinegar. This will soon exterminate the pests. A shovel should be heated red hot, set in an old tin pan, and carried to the closet; then pour vinegar upon it. The steam and fumes penetrate into every crack and crevice, with disastrous effect to the moths. The smell of burning vinegar is not at all unpleasant, and passes away quickly.

2. Moth balls, turpentine, and even formaldehyde are recommended to keep moths out, but why use things so disagreeable when there are many other more pleasant remedies which are equally effective? Our grandmothers knew this, when in the garrets of their country homes they stored away for that purpose bundles of dried sage, thyme, spearmint, lavender, and heliotrope. It is the pungency of the odor to which moths object.

3. If camphor, which is well known to be effective, is

"Delays are dangerous."

used in keeping away moths, it should never be placed near sealskin, as it causes the fur to change color, producing streaks of gray and yellow.

4. Oil of red cedar is a satisfactory preventive of moths. Wet little wads of cotton batting in the oil, and place them in closets and drawers.

5. Moths seem to object to printer's ink. Furs and woolens can be kept quite free from pests by shaking, cleaning, and doing up in large newspapers.

6. Those who prefer something odorless as a preventive, may use powdered alum and borax.

MOTHS IN UPHOLSTERED FURNITURE

Set the furniture to be cleaned in a room by itself. Put a quart of benzine into a small watering-pot fitted with a fine "rose" sprinkler, and saturate the whole upholstery with the benzine. The result will be that every moth, larvæ, and egg will be killed. The benzine will dry out in two or three hours, and its entire odor will disappear in three or four days. Not the slightest harm will come to the varnish, wood, fabrics, or hair stuffing. Carpets may be sprinkled in the same way, with equally good results. For furs, flannels, and all woolen articles containing moths, benzine is most valuable. Put them in a box, sprinkle with benzine, close the box tightly, and in a day or two the pests will be exterminated, and the benzine will evaporate on opening. Be careful in using benzine not to bring it near the fire or lamp, as it is very inflammable.—*Chase*

SILVER MOTHS, OR SILVER FISH

This destructive insect, known also as bristle tail, silver witch, etc., is about one-third of an inch long, tapering from the head to the end of the body, which ends in three thread-like caudal appendages. It is silvery white

"Consideration gets as many victories as rashness loses."

with a tinge of yellow on its legs and abdomen. In some countries it is common, and is very destructive to book bindings, wall-paper, starched curtains, and, in fact, to everything which contains starch or paste. It can be gotten rid of with poisoned starch. Make a stiff starch paste, poison heavily with arsenic, spread it on pieces of cardboard, and put them in the book-cases, drawers, and other places where moths are found. This is the only effectual exterminator that we know of. Great care should be exercised when this is used to keep the baby away from it.

PRECAUTIONS AGAINST MOTHS

The following paragraphs give so many helpful suggestions in concise form that we quote them in full, even though they do refer to several points already mentioned more at length:—

"The necessary precautions are first to kill all moths seen, and to shake, brush, and air all articles frequently. Thoroughly brush and beat all upholstered furniture. Before putting away woolens, furs, or feathers, see that they are as clean as possible. Wearing apparel should have all the pockets turned inside out, all the seams and hems brushed, and then be well shaken and aired. Clean all soiled places with benzine or turpentine. If there is any danger of eggs having been deposited in furs, carefully comb the furs, using a steel comb. Pin the articles in cotton bags. Put them in boxes or closets that have been made insect and germ free by carbolic acid. Put bits of cotton wet with oil of cedar in the boxes or closets, or cedar chips or camphor may be used.

"From early spring until late fall, carpets, upholstered furniture, and woolen garments hanging in closets not in constant use, should be brushed, beaten, and aired frequently.

"Every one thinks himself able to advise another."

"Should moths get into furniture, carpets, or any articles where it is difficult to reach the larvæ, the surest and cleanest method of eradicating them is to saturate the articles with naphtha, always keeping in mind that this must be done away from fire and artificial light, and with windows wide open. If the infested articles can be taken out on a piazza, the naphtha may be applied freely."

ANTS

1. A few drops of paregoric in water will attract all the ants about the pantry, or any other part of the premises. Put the solution in a shallow dish and the ants will fall into it.

2. Ground cloves sprinkled in the bottom of drawers, or on shelves, will drive them away. They object to the odor.

3. Cayenne pepper dashed freely on the ants and on their runways will also drive them away.

4. Mix equal quantities of powdered sugar and powdered borax, and strew on shelves and floors. The ants will eat so much of the sweet mixture that the borax will kill them.

5. Pulverized sugar and plaster of Paris, mixed, will keep away ants.

6. A small bag of sulphur kept in a drawer will keep red ants away.

7. Saturate a small cloth with oil of sassafras and apply it to every portion of their runway. If they come out of a crack, pour a little of the oil into it. It is sure death to them.

8. Hot alum water will also destroy red and black ants, and all other little crawling pests which infest our homes. Dissolve two pounds of alum in three or four quarts of boiling water, then apply it with a brush while nearly

Cleanliness is a great saver of time and temper.

boiling hot to every joint and crevice which you suspect may harbor vermin.

9. Carbolic acid diluted with water is also good to destroy these pests.

10. Soap and water is of very little use, except in keeping the premises clean, which is a good precaution.

ROACHES

These troublesome insects have a peculiar aversion to borax. One-half pound, powdered, and sprinkled about their haunts, will drive them out of the house. Cayenne pepper sprinkled about will also drive them away.

But prevention is better than cure, particularly that kind of cure which drives the roaches to one's neighbors. Perfect cleanliness in the kitchen, pantry, cellar, and back yard is all that is required. Kitchen refuse, bits of food, scattered grain and flour attract them. If they get into the house, they may be exterminated by flooding all cracks and hiding-places with hot alum water, or some one of the non-poisonous liquids sold for that purpose.

1. One of the best exterminators is phosphorus paste. Spread this on pieces of bread and leave it about places they infest; they are attracted by it, will eat it, return to their hiding-places, and soon die and be devoured by their neighbors, which in turn are killed, and thus the process of extermination is rapid.

2. Sprinkle the floor at night with hellebore; the roaches eat it and are poisoned.

Notwithstanding the success of these exterminators, no housekeeper should congratulate herself upon her success in getting rid of the roaches, and yet tolerate the uncleanness which attracts them. They are among the most disagreeable of pests, and when once rid of them, it is better to clean up and thus be rid of them altogether.

"He that will conquer must fight."

BEDBUGS

To get rid of bedbugs, prepare the following wash:—

1. Put into a quart bottle half an ounce of corrosive sublimate, half an ounce of powdered camphor, half a pint of wood alcohol, and half a pint of turpentine. Apply this wash with a brush. Mark the bottle plainly, and label it POISON.

2. Try gasoline. Apply it to all the crevices of the bed and around the woodwork of the room; this is easily done with an ordinary oil-can. One or two applications are usually sufficient. Be sure to use the gasoline only in the daytime and in a room where there is no fire or gas burning. This should always be remembered in using either gasoline or naphtha, which are both very inflammable.

3. Take the white of four eggs and a dime's worth of quicksilver, and beat them to a froth; then with a feather apply to every part of the bedstead where the bugs conceal themselves.

4. Turpentine applied every other day, with an oil-can, —and applied thoroughly—will ordinarily rid the premises.

A THOROUGH RIDDANCE

"There are many agents for exterminating these bugs, but my preference is for naphtha. It is clean, does not injure anything, is easily applied, and is absolutely sure if enough is used in the right place. The only drawback is that the vapor is very inflammable, but if the work is done in the morning, with the windows open, and there is neither light nor fire in the room, there is not the slightest danger. It must be remembered that these insects do not confine themselves to the bed. They get into picture moldings, the backs of pictures, cracks in floors and walls, and in upholstered furniture.

"Three things only are well done in haste—flying from the plague, escaping quarrels, and catching fleas."

"When you are preparing to exterminate these pests get a spring-bottom oiler (a can such as is used for oiling machinery) and plenty of naphtha. Open the window of the infested room. By means of the oiler, force naphtha into every groove and crack in the room. Wet all the ledges over the doors and windows, the top of picture molding, and every crack in the bed,—which should previously have been taken apart,—the mattress, pillows, etc. Have all the clothing put out on the line and beaten and shaken well. Close the door, leaving the windows open, and after a few hours the room may be swept, dusted, and put in order. Another method is to fumigate with sulphur; or oil of cedar may be used. Dip a feather or small brush in the oil and brush over the cracks and crevices. Shut up the room for several days. Air well before using."

FLEAS

Soap and water is the best eradicator. The flea is at home in dust and dirty cracks, but, like most of the dirty pests, he can not stand water. A clean house is usually free from fleas, except as they may be brought in on people's clothes.

In an old house where fleas are living and breeding in the cracks of the floors, the best way to get rid of them is to paint every floor in the house, being careful to fill all cracks with putty and paint.

Where fleas are very common, it is best to dispense with carpets altogether. They will soon leave a house where the floors are so smooth that they "slip up" and can never make proper jumps.

A thorough treatment of the rooms and furniture with naphtha, cleaning the room with carbolic water, sprinkling with insect powder, or frequent sweeping and mopping, will usually clear them out.

Whatever day makes man a slave takes half his worth away.—Thomson

SUGGESTIONS TO THE TORMENTED

All the remedies known can not enable a "tenderfoot" entirely to escape the annoyance of these little pests when he lands in a country infested by them. Some people remain "tenderfeet" all their lives. To people who are seriously poisoned by their bites they are a constant terror, particularly at night. The writer is one of the sufferers, and therefore ventures out of sympathy to give a few practical suggestions.

1. Wear close-meshed underclothing and stockings. The underclothing should lap and button up closely, particularly around the neck. Roll the stockings up over the bottoms of the drawers. If the mesh is fine enough so that the fleas can not get through, and if the garments fit tightly about the neck and wrists, there is but little danger of trouble by day.

2. Bedding should be kept up from the floor. If allowed to hang near enough to the floor so fleas can jump onto it, or if allowed to drag on the floor in the morning before the bed is made, the fleas will get into the bed, if there are any about.

3. Do not sit or lie on the bed with your clothes on, or throw wraps or clothing onto the bed at any time.

4. Finish running about before putting on your nightclothes. Fleas will always jump for anything white, and you are most likely to pick them up on your bare feet or nightclothes if the slightest opportunity is offered.

5. Before getting into bed, sit down on the edge of it and brush your feet.

6. If you find a flea is in bed with you, do not toss and roll, or try to fight him or catch him in the dark; do not throw back the bedclothes. Shake yourself thoroughly under the covers, then slip out quickly without turning back the sheet. Place a light where it will shine into the

"Diligence is the mother of good fortune."

bed when you partially lift the covers. Straighten out the top sheet so there are no wrinkles for hiding-places, then, with the sheet pulled to a fairly good tension, lift it gently and watch for him. He is almost certain to be on the upper sheet; that is why so many persons hunt for a flea several times in one night without finding him. Roll the covers back little by little until you find him, then wet your forefinger and thumb, put your finger over him quickly, pick him up and drop him into a vessel of water. Do not try to kill him over the bed; if you do, the chances are about equal that he will get away and give you a harder chase next time. A hunt of this kind should be pursued as systematically and scientifically as a bear hunt, or the hunter will miss his game.

Pennyroyal, oil of lavender, bronco flea-driver, and many other remedies are used with some success in keeping away fleas, but none of them can be made to take the place of cleanliness and carefulness.

Where fleas are very troublesome, it is well to keep alcohol or some other simple antidote on hand to rub on the bites to relieve the smarting of the poison.

CRICKETS

Put Scotch snuff into their holes. It is too much for them, and will drive them away.

HEAD LICE

Every mother, no matter how careful she may be, has to face the chance of finding vermin in her children's heads, particularly if they are sent to the public schools.

1. It should be strongly impressed upon the child that he should never, under any circumstances, even when at play, exchange hats with his playmates. Their heads may

Seest thou a man diligent in business? he shall stand before kings.—Solomon

be as clean as his, and they may not. If not, this is the surest way to get vermin.

2. The eggs need not be allowed to hatch if watchfulness is maintained. They will be readily found in clusters close to the neck. The same remedies will destroy both the eggs and the vermin.

3. The best remedy is a good fine comb.

4. This vermin is least likely to attack a head which is kept clean. As in the case of all other vermin, cleanliness is the greatest preventive, and the best remedy.

5. One thorough washing of the head and hair with alcohol or camphor will prove effective.

6. Take two tablespoonfuls of kerosene, and mix with it ten drops of carbolic acid; apply this at night; then in the morning wash the child's head thoroughly with a good lather of soap and water. One application of this is sufficient.

7. Equal parts of kerosene and ammonia applied the same as the kerosene and carbolic acid, is equally effective, and is not quite so powerful or irritating to the skin.

8. We advise the use of alcohol or camphor, rather than either of the last named remedies, as they are much more agreeable to use and are less irritating.



CAUTION

Whenever using any explosive, such as gasoline, benzine, naphtha, ether, alcohol, or even turpentine, for cleaning garments, remember that the greatest care is necessary. These things ought never to be left carelessly about the house. They should never be brought near a flame. Many lives have been sacrificed by carelessness.

TO CLEAN A SPONGE

If a sponge becomes slimy, and has a disagreeable odor, soak it in milk for a few hours. Wring out, and rinse thoroughly in a basin of warm water in which you have put a spoonful of baking-soda. This will make the sponge sweet and fresh.

TO CLEAN CHAMOIS SKIN

Wash it in strong suds, and rinse in warm water to which a little ammonia has been added. Stretch it out carefully, and hang on the line to dry. While drying, change its position on the line several times, so all the corners will be dry at the same time.

TO CLEAN BRICK OR TILE

"To clean tiled and brick fireplaces, use the following preparation: Put into a large kettle five quarts of boiling water, one pound of yellow beeswax, and four ounces of soap, both shaved fine. Stir frequently until dissolved; then, before taking from the fire, add two ounces of sal soda. Stir frequently until nearly cold. This will keep for months. When about to clean, take a small portion and add its own volume of turpentine. Put a little of the

"Who teaches often learns himself."

mixture on a cloth, and rub on the soiled surface. This preparation will clean wood finishes also."

STALE BREAD FOR CLEANING

When pages of books, magazines, or drawings become soiled from handling, or from dust or soot, one of the simplest and most satisfactory ways of cleaning them is by rubbing them with stale bread. This is what most artists use for erasing when drawing with charcoal. Take only a small piece of bread at a time, changing it as soon as it becomes soiled or discolored. White kid gloves, white slippers, wall-paper, etc., when not deeply soiled, may be cleaned in the same manner.

REMOVING SPOTS ON WALLS

Take a piece of fine number 0 sandpaper and rub the spots lightly. The marks will soon disappear, leaving the wall white.

Stains from matches may be removed with whiting, pumice-stone, and water; or rub the stains lightly with common chalk. When this is brushed off, the marks will be gone.

Blue or black pencil marks on wall-paper or white plaster may also be removed with chalk. With a piece of white crayon mark heavily over the streaks and then rub the places with a piece of cotton flannel cloth. Usually this treatment will remove the marks.

Smoke on the wall-paper or plaster may be removed in the same way.

ADJUSTING DOORS AND WINDOWS

The following excellent suggestions for adjusting doors and windows that are out of order are given in *Good Housekeeping*:—

"The sewing-machine is provided with a screw-driver

"Write down the advice of him who loves you, though you like it not at present."

and oil-can. Wonders can be performed with these tools. In an average house five years old, six doors out of the number will not work perfectly. Ten minutes on each door will fix them in most cases.

"1. The door has sagged a little, so the bolts can not run into their accustomed sockets in the catch. Open the door, loosen the screws in the bottom hinge, and drive wooden wedges in between the hinge plate and the door.

"2. The door is warped so that the part carrying the lock does not shut in far enough to reach the catch. Pry off the 'stops' or strips, that are nailed to the door-casing. Shut the door till the bolts catch; then nail the stop back in a new position, close up to the door.

"3. The door is shrunk until the bolt will not reach far enough to catch. Take the screws out of the catch plate and put pasteboard behind it.

"4. The door does not shut tight without turning the knob. Try a drop of sewing-machine oil on the sloping side of the bolt, so that it will slip easily when it strikes the catch.

"5. The door squeaks. Put a drop of sewing-machine oil on each joint of each hinge. Work the door back and forth till the oil works in, and the squeak stops. Then wipe off the superfluous oil.

"6. When a door or window sticks, and is hard to open, a little lard or vaseline applied to the part which rubs will often make it open easily."

TO CLEAN THE SEWING-MACHINE

When the sewing-machine runs hard from being gummed with oil and dirt, remove the thread and saturate all the bearings, above and below, with kerosene oil. Then run the machine rapidly for two or three minutes. Repeat the operation, if necessary, to cut the gum and dirt

"There is a difference between joyous work and joyless toil."

thoroughly. Then wipe the bearings with a cloth, and oil with the best sperm oil. Dried, gummy oil is the most common cause of hard-running machines. You will be surprised to see what a difference this treatment will make.

EASY CLOCK CLEANING

If the clock shows evidences of being dirty, by losing time or stopping occasionally, particularly in cold weather, you may be able to remedy the difficulty by a very simple means, and thus save the expense of having the clock renovated. Saturate a piece of white cotton cloth or a thin layer of absorbent cotton with kerosene oil, and place it in the bottom of the clock. As the oil evaporates and rises, it will loosen the gummy dirt, which will fall to the bottom of the clock, as will be indicated by the specks on the white cloth. By changing the cloth two or three times, and thus keeping the clock filled with the evaporating oil for a few days, the works will be oiled sufficiently to keep them running for several months. But as kerosene oil is not a good lubricator, and the chief object in using it is to clean the clock, it will be well to oil the bearings, wherever they can be reached, with a fine quality of sperm oil, applied with a feather or pointed stick.

GOOD MUCILAGE

The best and most convenient mucilage for ordinary household purposes may be made from equal parts of gum arabic and gum tragacanth dissolved in water.

The gum found on the peach, plum, and cherry tree, dissolved in vinegar, makes an excellent mucilage that will keep indefinitely.

REPAIRING RUBBER GOODS

For repairing hot-water bottles and all rubber goods, used in or out of water (except where the patch is con-

"Get your happiness out of your work, or you will never know what happiness is."

stantly in contact with hard wear), the following method is quite satisfactory:—

Procure from a bicycle dealer a ten-cent outfit for mending the inner tubes of bicycle tires. Take a piece of fine emery-paper and remove all foreign substance from the spot on the boot or bottle. Make one application of the solution, or more if needed. Let it stand for a minute. Take a patch of soft rubber, purchased at a drug-store, called "surgeon's rubber." Cut a patch the size you need, apply the emery-paper, as before, then the same solution to one side of the rubber, and let it stand a minute. Then, after the ether contained in the solution is evaporated, apply the part to the article to be mended, putting a weight of some kind on it to keep it from curling, and let it stand until dry.

POTPOURRI

Gather one peck of sweet-scented rose leaves and spread on blotting paper in the sun. Sprinkle them with a pint of salt. Turn them each day while they are drying. If you can obtain them, add carnations, sweet-scented violets, wallflowers, lavender, lemon verbena, and, indeed, any sweet-scented thing. When all are dry, put them in a jar, and add one-quarter ounce each of cloves and nutmeg, and one ounce each of Tonka beans, coriander seed, and orris-root. Add a little bergamot. Pour on this mixture an ounce of alcohol, and a few drops of essence of rose and lavender. Let the mixture rest in the jar one week, stirring several times. Then put in the rose jars. A jar filled with this mixture will retain its fragrance for years.

Rose petals make a delightful filling for sofa pillows. Save them from withered bouquets or from fresh flowers, and dry them. They may be treated as for potpourri or used with their own delicate perfume only.

"The only way to keep your education is to give it away."

UNIQUE NAPKIN RINGS

Take ordinary clothes-pins and burn designs upon one side of them and the name upon the other, and slip them over the folded napkin.



Dainty Linen Napkin Ring

Make the above design for a napkin ring from a double fold of fine linen or any other simple design, embroidered with blue forget-me-nots. After it is starched, laundered, and buttoned, the effect is very dainty.

TO DETACH STICKY FLY-PAPER

In the use of sticky fly-paper it is not uncommon for it to get attached to something besides flies, when it is likely to give much trouble. A liberal application of butter will loosen the sticky gum so that it can be easily washed or wiped off.

GREASE SPOTS

If grease is spilled on the floor or carpet, it should receive attention immediately, for the sooner the grease is removed, the quicker and more satisfactorily it can be done. If it is hot grease, pour cold water on it immediately; this will harden it, and thus prevent spreading or soaking into the floor. Before trying to remove the surplus oil, throw corn-meal, wheat flour, or buckwheat flour on the spot until it is entirely covered. Leave it for two or three hours, when the flour will have absorbed so much of the oil that it is completely moistened by it. This should be removed and a fresh lot put on. Two or three applications will usually remove the grease, so that after a thor-

"Life without industry is guilt."

ough sweeping you will be unable to discover where it was. Flour is one of the best absorbents of grease, and may be often used successfully for removing oil spots from books, papers, and nearly all household articles.

TO RENOVATE A GAS MANTEL

When a gas mantel becomes smoky and is apparently ruined, sprinkle salt on it and hold it over the gas flame. This process will renew it. Great care should be taken to avoid breaking it.

TO FASTEN THE DOOR OPEN

There are many patent fasteners which are very convenient. Home-made ones are less expensive. Cover a brick with a piece of pretty carpeting. This makes an ornamental stop that will not scratch the door or the floor.

Or, screw an ordinary three-inch screw hook into the base-board, behind the door, and the eye into the door. All you have to do is to drop the hook into the eye. Your fastener is always in place when wanted, and is neither unsightly nor in the way.

Stops should always be provided so that doors will not swing against the wall.

TO PROTECT PICTURE FRAMES

A little oil of lavender or water in which onions have been cooked, rubbed on picture frames, is said to protect them from flies.

HOW TO FIND A LEAK IN GAS PIPES

If you smell gas, look out,—there is a leak somewhere in the pipes. But do not try to find the leak with a lighted match. It is highly dangerous. Instead, make a lather of shaving soap, and apply to the suspected place. If there is a leak, a bubble will appear, and when the plumber comes, you can point it out at once.

"A little bit of patience often makes the sunshine come,
And a little bit of love makes a very happy home."

BRONZE

To clean bronze, dust it carefully first, then wipe it with a soft cloth slightly moistened with sweet oil, and polish it with a very soft chamois skin.

UNPLEASANT ODORS

Unpleasant odors, arising from cooking or other causes, may be removed from the house by burning cinnamon, sugar, vinegar, or resin. The cinnamon may be burned on the top of the stove. The other articles mentioned may be better burned on a few coals placed on a fire-shovel.

WORK

Let me but do my work from day to day,
In field or forest, at the desk or loom,
In roaring market-place, or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray,
"This is my work; my blessing, not my doom;
Of all who live I am the one by whom
This work can best be done in the right way."

Then shall I see it not too great nor small
To suit my spirit and to prove my powers;
Then shall I cheerful greet the laboring hours;
And cheerful turn when the long shadows fall
At eventide, to play and love and rest,
Because I know for me my work is best.

—Van Dyke



Don'ts *for* Housekeepers

DON'T

Don't wear the same shoes all day when compelled to be much on your feet. You will find yourself well repaid if you take time to change.

Don't hang your dish-cloth away wet and dirty. It will become sour and musty. Wash it, and hang it in the sunshine.

Don't put towels and napkins into the hamper while damp. They will mildew and cause much extra work.

Don't use tea leaves on your carpet in sweeping, as they are likely to leave a stain.

Don't use corn-meal on carpets when sweeping. If particles are left, it is sure to attract vermin.

Don't sweep matting with a bare broom. Your covered broom will take up the dust much better, and will save the matting much wear from contact with the bare splinters of the broom.

Don't use the water for cooking that has stood in the teakettle overnight. Fill with fresh water in the morning.

Don't use a brass kettle for cooking until it is thoroughly cleaned with salt and vinegar.

Don't wet the cogs of your Dover egg-beater. Wash the lower part as soon as it is used, carefully drying before putting away. If the cogs are wet, the grease will come off on your hands, and the beater will wear out much quicker.

Don't allow the scouring grit to get into the joints of the faucets. Even the smallest particles will cut away the screw threads.

Don't keep the flour in a damp place.

Don't allow neglect in the little things to spoil the larger ones.

Don't try to blacken the stove when it is hot. It will take more time and not polish so well.

Don't forget to spread a newspaper on the table when about to make a litter. It can be easily gathered up and put in the stove or garbage barrel and save much time and labor.

Don't allow ashes to accumulate under the fire grate, and then wonder why the grate burns out and the oven will not bake.

Don't wrap hot bread in a cloth and put it away in a box or can before it is cool.

Don't stand brooms in the corner resting on their broom ends. Turn them upside down, or hang them by their handles.

Don't throw or drain vegetables into the sink. Small particles will go through the sieve, lodge in the trap, and necessitate calling a plumber.

Don't keep the drafts open when not using the fire. It wastes the fuel and ruins the fire-brick.

Don't place your graniteware to dry over a hot fire. The heat in expanding may cause the outside to scale.

Don't allow grease to burn on the outside of your frying-pan. Wash it every time it is used.

Don't put ivory or wooden handles of steel knives into the dish-water. Hold the handles while washing the blades, as the action of the water loosens and discolors them.

Don't forget to pour a solution of caustic soda, boiling hot, down the drain once a week. It prevents the drain from clogging with grease, and saves many a plumber's bill.

SECTION THREE

Diet

Dietetic Rules

Eat only good, plain food, well cooked.

Be temperate in eating and drinking.

"Eat slowly and do not season your food with care."

Masticate all food thoroughly

Be regular at meals.

Avoid mixing many kinds of food at one meal.

Do not eat when fatigued.

Discard sweet and rich foods.

Avoid drinking with meals.

Avoid spices, hot sauces and all other irritants and stimulants

Good will is better than pepsin tablets to aid digestion.

"Let appetite wear reason's golden chain."



PROPER FOOD

"The earth to thee her increase yields,
The trees their fruitage bring;
And, glittering in the sunlit fields,
The vines with beauty spring."

"Every tree, in the which is the fruit of a tree yielding seed, to you it shall be for meat." Gen. 1:29.

Proper food is one of the principal factors in the building of a strong, healthy body and the maintenance of its faculties and functions, in harmony with nature's laws, so as to obtain from them the best working results.

The proper kinds of food are determined by their nutritive value, digestibility, etc. If poor food is taken into the system, it will make poor blood, and, consequently, all the tissues of the body will be poor. The health of the entire body depends largely upon the normal action of the digestive apparatus.

GOOD SENSE

No one should entertain the idea, however, that health and vitality can be maintained simply by eating good food. A man may eat the very best food, and yet be weak and diseased through neglect of exercise, cleanliness, regular habits, or some other vital factor equally as important as good food. An eminent physician once said to a large congregation of brain-workers, that, while many of them prided themselves on their healthful living, he had no doubt that lumbermen in the backwoods of Canada, living almost wholly upon fat, salt pork, beans, and hot soda biscuits, were living more nearly in harmony with the laws of health than the majority of the people present; for, while

Reason should direct, and appetite obey.
—Cicero

the food of the lumbermen was not good, their stern, active, out-of-door life compensated sufficiently to give them better health than most sedentary workers enjoy, who, though living on the best food procurable, neglect other vital, physical laws of equal importance.

This subject will be treated only as to general principles. Few absolute laws can be laid down as applying to all people; for climate, the different conditions under which men labor, and the radical differences in their physical needs, make it evident that foods which might be classed as good for one man, would not be good for another. It is necessary, therefore, for every man to study intelligently his own needs, and endeavor conscientiously to supply those needs as best he can.

There are, however, many general laws, some of which apply in all cases, and many of which apply in the majority of cases. The object of this chapter will be to suggest what foods are best adapted to meet the physical needs of man.

A NATION OF DYSPEPTICS

Americans are becoming known as a nation of dyspeptics. "Our greatest dietetic sins," says Mrs. Rorer, in *Ladies' Home Journal*, "are overeating, hurried eating, too frequent meals, too much complicated foods, and fried foods." This is undoubtedly true; we rush through our meals, and are not sufficiently careful regarding the mixtures and combinations that we make. Since dyspepsia lays the foundation for many diseases, the question of proper eating is, indeed, a vital one.

"If we consider the amount of ill-temper, despondency, and general unhappiness which arises from want of proper digestion and assimilation of our food, it seems obviously worth while to put forth every effort and undergo any sacrifice for the purpose of avoiding indigestion with its

Simple diet is best; for many dishes bring many diseases.
—Pliny

resulting bodily ills; and yet year after year, from the cradle to the grave, we go on violating the plainest and simplest laws of health at the temptation of the cooks, caterers, and confectioners, whose share in shortening the average term of human life is probably nearly equal to that of the combined armies and navies of the world."

VERY DISSIPATED

"Many persons might be said to be dissipated and 'all broke up' according to the Japanese use of the word, illustrated in the following anecdote:—

"They are telling in Boston of two or three Japanese students of rank who have been in the habit of dining each Sunday at the residence of one of the prominent citizens of the Hub. On a recent Sunday one was absent, and when the host asked why, one of the guests said solemnly: 'Oh, he can not come. He very, very dissipated!' The host thought it best not to make any further inquiry at the time, but after the meal, he ventured to ask the same young man in private:

" 'You say Mr. Nim Shi is not well?'

" 'No, he not very well,—he very dissipated.'

" 'He hasn't been drinking?'

" 'Oh no, no! he no drunk.'

" 'Not gambling?'

" 'No, no gamble.'

" 'May I ask what he has been doing, then?'

" 'Oh, he very dissipated. He eat sponge cake allee time—he all broke up now.' "

FRUITS AND GRAINS

Fruits, grains, and nuts were the original foods provided for man; and they are still the best, most natural, and most economical. For many years, particularly among the ignorant classes, meat and vegetables were almost wholly

Men should be temperate in eating as well as in drinking.
—Dr. Brandreth

substituted; but during recent years, there has been quite a general return to the use of these foods, until now a fine variety of cereals may be found in every first-class grocery; and the growing and sale of fruits and nuts is becoming one of the great industries of the world.

In one of the large cities of the United States, one principal street divides very distinctly between the more intellectual and the ignorant classes. In that city a wholesale grocer made the statement that during one year their trade in fruits and cereals to the more intelligent people of the city had increased five hundred per cent; while to the other class the trade had remained practically the same.

GRAINS

"O stay me with rice and with porridge,
O comfort me sweetly with grits;
Baked beans give me plenty of courage,
And cracked wheat enlivens my wits."

Grains, particularly wheat, rice, corn, and oats, contain nearly all the necessary food elements in about the proper proportion. But they are all deficient in fat. In some countries rice and beans are cooked together, and are considered a delicious dish. And they do make almost a perfect food combination. There is more than double the nutritive value in grains that there is in meat. Grains have formed the principal food of most nations from the beginning; and those nations which have risen the highest in the physical, intellectual, and spiritual scale have subsisted largely upon fruits and grains.

Numerous preparations of grains have come to be the staple breakfast foods. They contain gluten, vegetable caseine, vegetable albumen, fat, sugar, starch, and dextrine.

Proof that grains contain all the necessary food elements is abundantly afforded by the fact that hundreds of millions

The mother should study to set a plain yet nutritious diet before her family.—Mrs. E. G. White

of people in Southern and Eastern Asia live almost wholly, if not entirely, upon them. It is a well-known fact that the larger part of the Japanese nation, which during recent years has risen so rapidly in physical and mental attainments, live almost wholly upon rice.

RAW FRUITS

If allowed to ripen upon the trees, most fruits are wholesome when eaten fresh. When picked green, and allowed to ripen by age, in the markets, they are not so good. Acid fruits should be eaten sparingly by most people. Subacid fruits, of which the peach is the best example, are excellent, and of considerable food value. Sweet fruits, of which figs and dates are good examples, are the best of all fruits for food.

COOKED FRUIT

Nearly all fruits are wholesome when cooked. The simplest and best methods for cooking nearly all kinds of fruit are stewing and baking. Unripe and immature fruits should never be eaten raw; for they contain starch, which, if taken into the stomach raw, is indigestible. During the process of ripening, the starch in the fruit is converted into sugar.

OVERRIPE AND DECAYED FRUIT

Fruit, whether eaten fresh or cooked, should be clean and sound. Stale fruits are always to be found in the market. They are sold at a reduced price, and many buy them on this account, and are made sick by their use. Any food that has begun to mold or to decay should never be eaten. Fruit that has begun to decay is unfit to eat. An apple is a live thing in a certain sense. Strange as it may seem, science declares that fruits breathe and have circulation of juices all the time. Plants that are growing

"A pure, light diet would do wonders in improving the health and efficiency of the laboring classes."

also breathe. They take in carbonic acid gas and breathe out oxygen—just the opposite from fruits. Fruits take in oxygen and breathe out carbonic acid gas, like animals. The air in fruit-houses often becomes very foul and unfit to breathe, because the fruit has consumed the oxygen.

The juice is circulating through an apple all the time, just as the blood circulates through the body. So, if the apple begins to decay, the decayed juice is carried all through it.

We may abstain from meats, cheese, etc., and yet at the same time eat rotten apples and other decayed fruits, which may be just as harmful. We should be consistent. Fruits that have become musty are very often used, but are unwholesome.

Perfectly sound fruit will keep much better when canned than fruit which has begun to decay. It does not require so much cooking. In order to preserve second-grade fruit that has decayed more or less, a prolonged cooking is necessary.

We ought to discard all fruits and vegetables that are affected by certain forms of germ disease, such as, for instance, the yellows in peaches. Such fruit is likely to cause severe sickness.

APPLES

The apple deserves special mention. It is the most valuable and wholesome of fruits. "It has been my observation," says Mrs. S. T. Rorer, in *Ladies' Home Journal*, "after most careful experiments, that both children and adults who eat freely of good, ripe, mellow apples, either raw or baked, and with the skins removed, are free from various forms of indigestion, liver trouble, and also from constipation. The scraped apple will be more easily digested than one partly masticated; and cooked apples are,

"Spring biliousness is the natural result of winter gormandizing."

to many, more acceptable than raw ones, especially if mastication is imperfect."

The apple, being among the acid fruits, is of great value as a means of cleansing the alimentary canal.

There is no fruit more appetizing than clean, rosy-cheeked, luscious apples; and, arranged tastily on a fruit dish, they are an ornament to any table.



APPLE SAYINGS

The following compilation of "Apple Sayings" is taken from the *Youths' Companion*:—

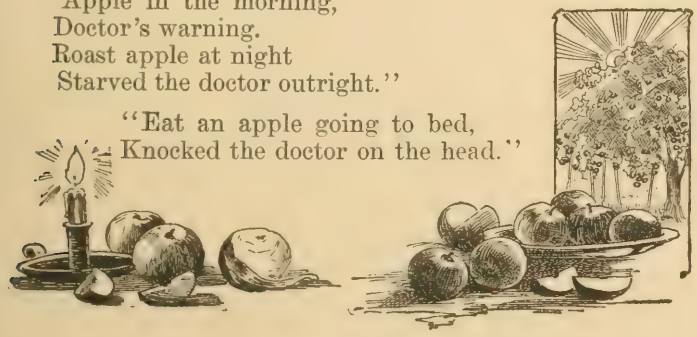
"Apple sayings" are frequent, both in our country, in England, and other lands, all of which testify in favor of the fruit. In the "west countree" there are four such:—

"An apple a day sends the doctor away," is the first and briefest.

Then follow, in the order of their vigor, three more:—

"Apple in the morning,
Doctor's warning.
Roast apple at night
Starved the doctor outright."

"Eat an apple going to bed,
Knocked the doctor on the head."



Small cheer and great welcome make a merry feast.
—Shakespeare

A little less aggressive is one of the Midlands:—

"Three each day, seven days a week—
Ruddy apple, ruddy cheek."



Gathering with Care

But still more interesting than these is an old orchard verse which used to be recited on certain ancient farms on the plucking of the first ripe apples of the crop. Misfortune was supposed to follow its omission, and its utterance was quite a little ceremony, the first apple over which it was spoken being presented to a young girl, who halved and bit it before any further fruit was gathered, or at least tasted. Thus it ran:—

"The fruit of Eve receive and cleave,
And taste the flesh therein;
A wholesome food, for man 'tis good
That once for man was sin.
And since 'tis sweet, why, pluck and eat,
The Lord will have it so,

"The free use of sugar in any form tends to clog the system, and is not infrequently the cause of disease."

For that which Eve did grieve, believe
Hath wrought its all of woe—
Eat the apple!"

BANANAS

In its native home, the banana is an important article of diet. It is valuable as a food, containing nearly twenty-seven per cent of nutritive elements, being only a trifle less nutritious than an equal weight of beefsteak. The banana is not only good in its raw state, but is also delicious when baked, and makes a nourishing and harmless diet even for invalids.



About Twenty-Seven Per Cent Nutriment

KEEPING FRESH FRUIT

1. If the fruit is of a late variety, allow it to remain on the tree as long as it is practicable without freezing.

2. Always pick and handle the fruit with the greatest care.

3. Gather the fruit on a dry, cool day, and place in heaps or bins for two or three weeks.

4. Carefully sort and pack in barrels, label, and place in a cool, dry place where the temperature will remain equable. Some consider it better to keep fruit in thin layers upon broad shelves in a cool place. This plan allows frequent inspection and removal of all affected fruit without disturbance of the remainder.

Nothing is stronger than custom.
—Ovid

5. Warmth and moisture are the conditions most favorable to decomposition, and, therefore, should be especially guarded against.

6. The best temperature for keeping fruit is about thirty-four degrees F or two degrees above freezing.

BREAD

Bread is the basis of every properly planned menu. No meal is complete without it. It is "the staff of life." We can do without any article of food better than without good bread.

In nearly all countries wheat is the principal grain from which bread is made. This stands at the head of the list, as it contains nearly all the food elements in the proper proportion. In some countries corn and rye are much used. Among the natives in some of the islands of the tropics, a kind of bread is also made of the cassava root.

Bread of some kind is essential. It is a dry food, and, if well baked, requires thorough mastication, while soft foods, if eaten alone, may pass from the mouth without being properly mixed with the saliva and prepared for stomach digestion.

If possible, every housewife should plan to make her own bread. No other can equal, in cleanliness, sweetness, and wholesomeness, good home-made bread.

Although this is not a book of recipes on cookery, it can not be considered out of place to give a recipe for good home-made yeast and bread. If directions are carefully followed, the bread will be excellent.

MAKING THE YEAST

Cook three medium-sized potatoes in a quart of water; when tender, mash in the water in which they have been cooked. Steep a small amount of compressed hops in a

I won't quarrel with my bread and butter.
—Swift

cupful of water; strain and add to the potatoes; then add one-half cup of sugar, a tablespoonful of salt, and one yeast-cake. Compressed yeast is best, but if this is not obtainable, use Magic, or any other good, live yeast. Stir well and let stand for twenty-four hours, when it will be ready for use. If kept in a cool place, this may be preserved without changing for a week, but it would be better if changed twice a week.



Mash in the Water in Which They Have Been Cooked

MAKING BREAD

When ready to bake, cook three or four potatoes, or save them out, together with the potato water, when cooking for the table. Mash them as directed for making the yeast, and add water enough to make wetting for the amount of bread desired. To this add all the prepared yeast, a teaspoonful of salt, and a tablespoonful of sugar; stir well, and let stand overnight. In the morning, before adding any flour, stir thoroughly, and save out about a quart of the mixture for yeast. Occasionally, say every second time the yeast is used, steep a few hops and add to it, together with half a cup of sugar and a spoonful of salt. The hops help to keep it sweet. In this way the yeast can be preserved indefinitely. It should always be kept tightly closed, and in a cool place.



Stir Thoroughly

After saving out the yeast, add enough flour to the wetting to make a dough, and knead thoroughly from twenty to thirty minutes, then set to rise in a warm place, if the weather is cold. When light, that is, when

"There is religion in a good loaf of bread."

it is doubled in bulk, knead again for five minutes. Then shape into loaves.

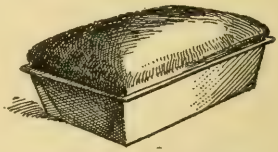
If there should not be sufficient time the first thing in the morning to give the bread a proper kneading, make a thick sponge, and let it rise before kneading. If done this way, it is usually better to let it rise the third time before baking.



Knead Thoroughly

The loaves can be better baked in separate tins. When placed in the tin, the loaf should fill it about half full; let rise until it is even with the top, then place in a moderately hot oven, and bake from three-quarters of an hour to an hour and a quarter, according to the size of the loaf and the heat of the oven.

Whenever the bread rises up on one side more than the other, making an unsightly shaped loaf, the pans have touched or been too close to the side of the oven.



The Loaves Can Be Better Baked in Separate Tins

CARE OF THE BREAD

Line the jar or can containing the bread with a sheet of clean brown paper. This absorbs the moisture, and if replaced with a clean paper two or three times a week, the bread will not mold in the jar.

GRAHAM AND WHOLE-WHEAT BREADS

More care is necessary in making sweet bread from graham and whole-wheat flours than from white flour. They ferment more easily, and hence will sour more quickly. Less yeast should be used in making them, and they should be put in a cooler place to rise.

Hot raised bread of any kind is difficult of digestion.

Whole-wheat bread is made practically the same as white bread, with the above precautions, only a little less flour should be used.

Graham bread should be made softer than either of the others mentioned. Some prefer stirring it as stiff as possible instead of kneading it. It is more moist when made this way. To make the crust tender, spread a teaspoonful of cream over the top of the loaf before baking.

All breads require thorough baking, but graham bread especially. Bread should remain in the oven from forty-five minutes to one and one-half hours, according to the size of the loaves.

HOT BREAD

Bread made from wheat flour contains a great deal of starch. It should, therefore, be thoroughly masticated and mixed with the saliva before being swallowed; the saliva contains a substance called ptyalin which helps to digest the starch. Hot bread forms a paste in the mouth, not easily penetrated by the saliva, and therefore slips into the stomach unaltered, where it can not be readily digested. To be healthful when eaten, bread should be at least a day old.

SODA AND BAKING-POWDERS

Soda, saleratus, cream of tartar, and baking-powders, as generally used, are exceedingly harmful. In many homes nearly all the bread placed upon the table is made light by the use of baking-powder or soda. This practice is both unnecessary and harmful.

The most wholesome breads, such as gems, crackers, rolls, and sticks, are made without soda, baking-powder, cream of tartar, or yeast. They are also the most palatable. Soda often causes inflammation in the stomach, and poisons the entire system.

"Dry food that requires mastication is far preferable to porridges."

The cheaper grades of baking-powders often contain alum or ammonia, which are very injurious to health, frequently causing disease in the stomach and bowels.

The change in methods of cooking from the harmful to the better way should be brought about intelligently. Make careful experiments. Improve opportunities to



Delicious and Wholesome

learn. Radical reforms introduced ignorantly, often do great harm. Bread that is sour or soggy is not as wholesome even as bread made with soda or baking-powder.

The better grades of baking-powders are less harmful than soda or saleratus; but the free use of any of these substances is detrimental to health.

CRACKERS, ROLLS, STICKS, AND GEMS

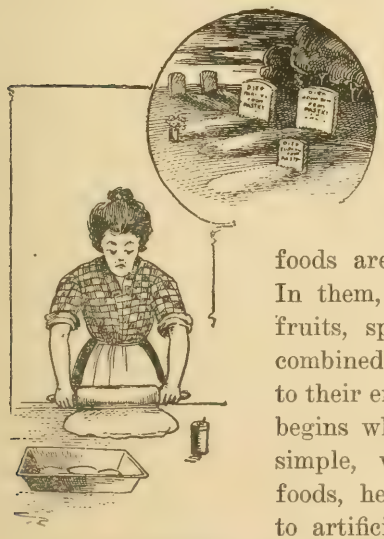
Breads made from cream, milk, or water, in the form of crackers, rolls, sticks, or gems, and without the aid of baking-powders of any kind, are very sweet and nutritious.

"Rich sauces and highly seasoned dishes provoke thirst."

The sticks, when thoroughly baked, are especially crisp and wholesome. These are excellent for people having slow digestion. They are hard, requiring thorough mastication, and, having no yeast germs in them, do not ferment so quickly as yeast bread.

CAKE AND PASTRY

The free use of pies and cakes, as they are commonly made, should be strictly condemned. They are usually eaten at the close of a meal of meat and vegetables, and, as the stomach is powerless to digest fats, they often hinder the work of digestion until the whole is fermented. Of this Dr. Rossiter says:—



The Fatal Rolling-Pin

"Cakes, pies, puddings, and other rich foods are poor building materials. In them, sugar, butter, eggs, milk, fruits, spices, acids, and nuts are combined without the least regard to their effect upon the body. If one begins when a child to choose only simple, wholesome, and natural foods, he will always prefer them to artificial dishes. He has a perverted taste who likes cookies and pie better than pure, wholesome bread and fruits."

ZWIEBACK

Zwieback (twice-baked bread) is one of the most wholesome foods when properly made from good, sweet bread.

Stale bread is usually considered best for this purpose.

Sour bread makes a sour digestion, a sour temper, sour feelings, as well as a sick and sour stomach.—Rossiter

It is a good way to utilize left-over pieces and all that is too dry for the table.

Sour bread is not fit to eat even when made into zwieback, though the second baking may slightly improve it. The cheapest thing to do with sour bread is to throw it away, thus saving suffering and doctor's bills.

To make zwieback the slices should be cut about half an inch thick. Toast in a slow oven until it is thoroughly dried out; then increase the heat for a few minutes until it is a golden brown. At this point it needs careful watching, for, being dry, it will burn quickly.

Zwieback can be made in large quantities, even for a small family, for, if stored in a dry place, it can be kept indefinitely, and by simply reheating is always ready for use.

TOASTS

"Zwieback should be the foundation of all toasts." When ready to prepare the toast, soften it with a hot liquid, either water, fruit juice, or cream.

Toasts made by simply browning fresh slices of bread before a hot fire are not wholesome. When made in this manner, the inner part of the slice will be in the same condition as if it were new bread, and will, consequently, be difficult to digest.

Toasts, if properly prepared, are nutritious and appetizing both for the sick and the well, and are an excellent breakfast dish.

BUTTER

Good, pure butter is the most wholesome of all foods composed wholly of fat. In most cases, however, fresh milk and cream are good substitutes. When they can be secured so as to supply amply the needs of the body, it is well to dispense with the use of butter altogether.

If butter is used, great care should be exercised to

Neuralgia is "the cry of a hungry nerve for better blood."

secure the best quality; for the best is none too good. By carelessness or ignorance in handling the milk and cream, which are very subject to contamination, the butter may be rendered unfit for use.

Butter is most easily digested when eaten on cold food. If exposed to heat, as when eaten on hot biscuits, toast, or griddle-cakes, it is less wholesome, and it also hinders the digestion of the food with which it is eaten.

FATS

A certain amount of fat is necessary for the proper sustenance of the body. A working man requires from one to two ounces daily. Fat is found in both vegetable and animal foods. Among vegetable foods, nuts contain the largest per cent. It is also found in the different grains, peas, beans, and in a few fruits. The olive is especially rich in oil, and, when ripe, it is very wholesome as an article of diet.

In the natural forms, fats are in a state of emulsion, and are then in the proper condition to be used in the body as an article of food. Free fat is not only difficult of digestion itself, but it hinders the digestion of other foods with which it is mixed.

Some persons, in adopting a vegetarian diet, leave off the use of fats almost entirely, and, as a result, suffer a decline in health. Fat produces heat in the body, and is essential to the strength and vitality of its tissues. "When food is deficient in fat, all the vital functions languish; digestion fails; the bowels become inactive; there is a loss of flesh, a marked loss of strength, a loss of ability to resist cold, and other marked evidence of physical depreciation."

Fats are not digested in the stomach. When free fats are mixed with foods that should be digested in the stomach,

Let them give us pulse to eat and water to drink.
—Daniel

they cause delay; and often fermentation takes place before the food passes into the intestines, where the digestion of fat begins. The saliva and the gastric juice, the digestive fluids of the mouth and stomach, do not digest fats, and can do but little with starch and albuminous foods when they are mixed and coated over with free fat. Persons with weak digestion should use care in the combination of the different food elements.

LEGUMES

Peas, beans, and lentils constitute the leguminous foods. They are usually served as vegetables. When mature, they are rich in nitrogenous elements, mostly in the form of vegetable caseine; when not mature, they are much like vegetables. Containing so much nitrogenous material, these are excellent substitutes for animal food. They combine well with rice, which is mostly starch. These foods should be eaten sparingly by brain-workers.



Peas and Beans

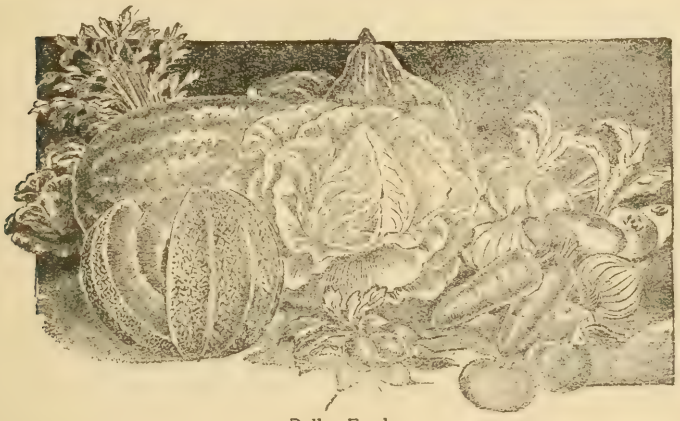
The following table gives the comparative value of beef and Japanese beans, pound for pound:—

	Beef	Beans
Water	74.00	9.37
Nitrogen	22.74	36.17
Carbon	9.30	17.60
Mineral	.54	3.10

"Mixed and complicated dishes are injurious to the health."

VEGETABLES

Vegetables occupy an important place in the bill of fare; for, while they are not rich in nutritive value, they are in mineral elements, and supply bulk to the food.



Bulky Foods

They should not be used as an exclusive diet, since, in order to secure from them alone the proper amount of the nitrogenous food elements for one day, a person would be obliged to eat from nine to twenty-two pounds, according to the vegetable eaten. But if used in combination with grains and nuts they are very serviceable.

The Irish potato is one of the most valuable vegetables, and is used in nearly all countries. In Ireland it has long been the staple article of diet.

EGGS

Eggs are a highly concentrated food, and are rich in nitrogenous elements. When fresh, they are wholesome and nourishing. Great care should be taken to select eggs that are known to be fresh. They are sometimes affected by disease, and it is not an uncommon thing for

"Good-will is better than pepsin tablets to aid digestion."

persons to be made sick as a result of the use of such eggs. They ought never to be eaten unless they are fresh or have been properly preserved. Eggs are often affected by some germ disease, and such eggs, when taken into the alimentary canal, sometimes cause serious consequences.

Fried and hard-boiled eggs are difficult of digestion. They are most easily digested when poached or soft boiled.

Eggs keep best in a cool place, and should be handled with care; for if shaken up much, they spoil quickly.

NUTS

There are a great variety of nuts, and in some countries they are much used as an article of diet. They are



Rich in Fats

rich in fat, but contain little or no starch. They also contain albumen and vegetable caseine. Nuts have a highly nutritive value, but are hard to digest unless well masticated. They can be more easily digested if eaten with some hard food, as this insures thorough mastication. Being a highly concentrated food, however, they should be

They are as sick that surfeit too much as they that starve with nothing.—Shakespeare

eaten in moderation. Some nuts are made more digestible if properly cooked. They are much used in these days by many people as a substitute for flesh food, and it is claimed by those who have thoroughly investigated the matter, that they completely replace meats and all kinds of animal foods—flesh, fish, fowl, and even butter and milk.

MILK

Milk is one of the most perfect foods, containing all the elements of nutrition. The young of nearly all animals thrive on it as their only food. Many people of mature years also find it a valuable article of diet, though there are many others who find that it clogs the system, and have to discard its use.

The value of milk as a food depends largely upon intelligent care being taken in its production and preservation. If all families could control their source of milk supply, and would do so intelligently, one of the most serious dangers to health would be removed. Perhaps no other article of diet is so likely to become diseased and contaminated by its surroundings.

The following facts on this important subject are gathered from notes made from class lectures by Kate Lindsay, M. D., a member of the medical faculty of the Boulder, Colorado, Sanitarium:—

"There is probably no one article of food, the use of which in the first stages of decomposition is so productive of harm as milk. It is a very nourishing article of food when wholesome, but it decomposes readily. After being milked, decomposition begins quickly.

"New milk is more digestible, and is more likely to agree with a delicate stomach, than milk that is several hours old. The reason why fresh milk from the cow is so wholesome is because it contains no germs, and if sealed

Many dishes have induced many diseases.
—Seneca

up hermetically would keep for an indefinite length of time. In this way milk may be kept for a number of days in a warm place, without souring. Germs are the source of all decomposition, and to keep milk in a wholesome condition it is necessary to keep it free from germs. Milk usually begins to decompose in a very short time after it has been milked, because it receives germs from the air. Germs are exceedingly numerous about stables, in the dust of such places, and in the dust that falls from the animal into the pail while milking. Milk becomes contaminated in this way, and its warmth favors the growth of these germs. It is important then that it be cooled quickly after milking. In some countries milk is always scalded. This is a good practice, as it kills any germs that it may contain.

"Milk has been found to contain between thirty and forty kinds of germs. Each of these germs produces a characteristic poison, and their source can be easily inferred from the kind of poison. Two or three kinds cause the milk to sour; two or three cause it to coagulate without souring. Many persons, perhaps, have noticed that milk will sometimes curdle without souring. This is because a large number of these particular germs happen to get into it. There is another kind that will cause the milk to become bitter without souring it. Another will cause the milk to become blue. These manufacture a blue coloring matter which dyes the milk blue. There is still another kind that causes the milk to turn red after standing awhile.

"When milk becomes a little stale before it gets sour, some people say that they must use it up right away, or it will spoil. But this milk is already swarming with germs. Germs multiply very rapidly under favorable conditions. A single germ will double itself every fifteen

"The effect of cheese is deleterious."

minutes. Starting with one germ, figure it out and see how many you will have in twenty-four hours. If a child is given stale milk, it is liable to be made very sick indeed, because of the decomposition of the milk in the stomach. Such milk should never be fed to children nor eaten by anybody else, unless it is first scalded to kill the germs. Mothers frequently make their children very sick through their ignorance of the rapidity with which germs multiply in milk. Hundreds of thousands of children have died through the use of the nursing-bottle. The tubes of nursing-bottles can not be easily cleansed, and are, consequently, a source of constant contamination.

"Sometimes germs that are very poisonous get into the milk. It happens that a kind of cheese, made at a certain cheese factory, at a certain time, will make persons who eat it very sick. This is caused by a certain kind of germ getting into the milk at that time. It may be the milk from some particular place, or from some particular cow, that contains these germs, and, being put in with all the other milk from which the cheese is made, it poisons the whole quantity. This particular poison is known as tyrotoxicon. This poison is found in other forms of milk besides cheese. It is frequently found in ice-cream, and it is sometimes supposed that the cream has been poisoned by somebody. The way it happens to be present in the cream is this: These poisonings usually occur at church festivals or Sunday-school picnics, where the cream is made from milk that has been gathered in from various sources, and all put together. Some of this milk may have contained these germs and contaminated the rest, or it may have been put into a place where it absorbed them from the air, and, the conditions being favorable to their growth, the poison is produced rapidly.

Many a sermon has received a dark shadow by the minister's indigestion.—Mrs. E. G. White

"Tyrotoxicon is exceedingly poisonous. A few drops will kill a cat or a dog, or make a person very sick. The symptoms are similar to cholera. Cholera morbus and cholera infantum are frequently caused by this poison. It is likely to be found in milk at any time. The remedy is to boil the milk. In fact, milk should never be eaten without being scalded, unless it is known to be pure. No harm whatever will result from boiling the milk, as the process only renders it more digestible."

SUMMARY OF SUGGESTIONS ON THE USE OF MILK

1. Milk should not be secured from unknown sources.

2. Canned milk can not be relied upon. If used at all, only the best should be purchased.

3. If possible, secure milk from only one healthy new milch cow. It is not good to use mixed milk even from one's own dairy.

4. When milking the cow, great care should be taken that no dirt or filth of any kind gets into the milk.

5. Cows should be kept in a clean, well-ventilated place. Milk is made impure from milking in a nasty stable, even if no dirt falls directly into it. Nothing will take up odors and floating germs so quickly as milk.

6. The milk should be strained well, and sterilized at once after it is milked.

7. It should be kept where it will not take up unpleasant odors or the dust from living-rooms. It is well to cover the milk with several thicknesses of cheese-cloth, which keeps out the germs, but admits the fresh air.

8. Never use milk that is near the point of souring. Milk may be kept sweet in cool weather for several days by heating daily and keeping in a refrigerator, fresh-air cupboard, or other suitable place.

It is not the chief end of man to gratify the appetite.
—"Christian Temperance"

SOFT, MUSHY FOODS

Soft, mushy foods can not be recommended. They are usually imperfectly cooked; and, besides being moist in themselves, they induce a secretion of only a limited amount of saliva, and, consequently, digestion, which should be begun in the mouth, is imperfectly commenced and will doubtless be imperfect during its whole process.

CREAMED VEGETABLES

These might properly come under the head of soft foods, and thus be condemned for the same reason. Aside from this, however, much of the natural delicate flavor of the food is lost when smothered in creams and gravies.

GRIDDLE-CAKES

By some eminent physicians, griddle-cakes are placed among the indigestibles. If not wholly indigestible, they are at least hard to digest. If griddle-cakes could always be baked on a soapstone, or in some manner requiring little or no grease, they would be more wholesome, but if they are soaked in grease, they are certainly a questionable article of diet. The hot fat in which they are fried permeates the mass, and renders them almost wholly indigestible in the mouth and stomach. Consequently they lie in the stomach, undigested, until fermentation takes place, and headache, palpitation of the heart, or some other trouble equally disagreeable, results.

"MUSH"

Properly cooked grains are a delicious and wholesome dish, but the half-cooked, pasty preparations termed "mush," often placed on the tables of even those who suppose they are living in the most hygienic manner, are unfit for food, and are responsible for much of the stomach trouble and dyspepsia of the present day.

Almost every human malady is connected, either by highway or byway, with the stomach.—Sir Francis Head

Grains require prolonged cooking. They are composed mostly of starch, and the action of the heat bursts the little starch granules, changing the starch into dextrine, thus partially digesting it. When ready for the table, grains should be as dry as possible, and then served with some hard food, such as zwieback or hard biscuits, in order to insure thorough mastication.

Many of the dry preparations of grains on the market in the form of flakes are better for a breakfast food than the soft mushes, which, in the past, were deemed an almost indispensable breakfast dish. We live to learn.

SOUPS

Soups have long been considered a necessary item on the menu of a well-served dinner. If well prepared from the proper material, they contain a certain amount of nourishment, but should, as the usual thing, be served sparingly, as there is danger of introducing too much liquid into the stomach, thus hindering the process of digestion. Soups prepared from grains and vegetables are more wholesome than the greasy combinations so often served.

Peas, beans, lentils, corn, rice, pearl barley, macaroni, vermicelli, sago, tomatoes, potatoes, and all the different vegetables, seasoned with a little cream, butter, or some of the nut preparations, are nutritious and wholesome, and are a good substitute for all meat soups.

SWINE'S FLESH

Pork, although one of the most common articles of diet, is one of the most injurious. God did not prohibit the Hebrews from eating swine's flesh merely to show His authority, but because it was not a proper article of food for man. Deut. 14:8. It would fill the system with scrofula, and, especially in that warm climate, produce leprosy and diseases of various kinds. . . . Swine's

" Excessive eating of even the best of food will produce a morbid condition of the moral feelings."

flesh, above all other flesh meats, produces a bad state of the blood. . . . It is impossible for the flesh of any living creature to be healthy when filth is its natural element, and when it feeds upon every detestable thing. The flesh of swine is composed of what they eat. If human beings eat their flesh, their blood and their flesh will be corrupted by impurities conveyed to them through the swine.—*"How to Live"*

The United States meat inspector at the Sioux City stock-yards is authority for the statement that consumption is spreading with great rapidity among the hogs of the United States. Under present conditions the authorities are powerless to stop the spread of the disease. The epidemic is not only a menace to the stock-raising industry, but also to the health of all who make use of pork as an article of food.—*Life and Health*

A CHINESE DELICACY

Some time ago a Chinese boy, the son of an ambassador, was asked what he liked best to eat. He replied, "Milhi." This delicacy consists of young mice dipped in honey and swallowed alive and kicking, like oysters. When an expression of horror indicated the state of mind of a bystander, young Wu remarked, "Milhi aren't half so squashy and slimy as raw oysters."

HOT WEATHER DIET

The sultry period of summer, although of comparatively short duration, is nevertheless extremely oppressive to some persons. This is due mainly to the practice of eating much animal foods or fatty matters, accompanied, as they often are, with the habit of drinking freely of fluids containing more or less alcoholics. If living on cereals, vegetables, and fruits, and abstaining from alcoholic drinks, the same

Good humor and good health follow a good meal.
—Smiles

persons would probably enjoy the temperature, and be free from the thirst which is the natural result of consuming needlessly heating food.—*Sir Henry Thompson*

"AS A MAN EATETH, SO IS HE"

Most assuredly I do believe that body and mind are much influenced by the kind of food habitually depended upon. I can never stray among the village people of our windy capes without now and then coming upon a human being who looks as if he had been split, salted, and dried, like the salt fish which has built up his arid organism. If the body is modified by the food which nourishes it, the mind and character very certainly will be modified by it also. We know enough of their close connection with each other to be sure of that without any statistical observation to prove it.—*Oliver Wendell Holmes*

THE VALUE OF FRUIT ACIDS

You have seen people clean brass and other metals with acid. The acids of fruits are used to cleanse the mouth, the stomach, and the intestines. They kill the germs that have found their way to the living canal. They cool the blood, and help the kidneys to throw poisons out of the body. They also help the liver cells to do their work. The acids in fruit are a very important part of the body's building material.—*Rossiter*

THE WHOLESOME PART OF DOUGHNUTS

The health journals and the doctors all agree that the best and most wholesome part of the New England country doughnut is the hole. The larger the hole, they say, the better the doughnut.—*"Science in the Kitchen"*

FALSE ECONOMY

There is much false economy; those who are too poor to have seasonable fruits and vegetables will yet have pie

" Catarrhal difficulties, kidney disease, headache, and heart troubles are the result of immoderate eating."

and pickles all the year. They can not afford oranges, yet can afford tea and coffee daily.—*Health Calendar*

GOOD FOR MAN AND BEAST

Dr. Johnson, who entertained a great dislike for the Scots, and lost no opportunity of saying bitter things against them, once defined oats as "in Scotland, food for Scotchmen; but in England, food for horses." He was well answered by the indignant Scotchman, who replied, "Yes, and where can you find such men as in Scotland, or such horses as in England?"

INSATIABLE COVETOUSNESS

An ox is satisfied with the pasture of an acre or two; one wood suffices for several elephants. Man alone supports himself by the pillage of the whole earth and sea. What? Has nature indeed given us so insatiable a stomach, while she has given so insignificant bodies?—No; it is not the hunger of our stomachs, but insatiable covetousness which costs so much.—*Seneca*

"Some eat to live, they loudly cry;
But from the pace they swallow pie
And other stuff promiscuously,
One would infer they eat to die."

The best foods out of which to make energy are simple foods like grains, fruits, and nuts. The best drink is water.—*Rossiter*

The kitchen (that is, your stomach) being out of order, the garret (the head) can not be right, and every room in the house becomes affected. Remedy the evil in the kitchen, and all will be right in parlor and chamber. If you put improper food into the stomach, you play the mischief with it, and with all the other machinery besides. —*Abernethy*

The best seasoning for food is hunger.
—Socrates

Behind the nutty loaf is the mill wheel; behind the mill is the wheat-field; on the wheat-field rests the sunlight; above the sun is God.—*James Russell Lowell*

Radishes, although very palatable to most persons, are hard to digest, and contain very little nutriment.

Cane sugar is the least digestible of all foods. It is not digested in the stomach, but in the small intestine. There is only one fluid that will digest cane sugar.

Carlyle, catching a glimpse of Macaulay's face, once remarked, "Well, any one can see that you are an honest, good sort of a fellow, made out of oatmeal."

Woman (to tramp).—I can give you some cold buckwheat cakes and a piece of mince pie.

Tramp (frightened).—What ye say?

Woman.—Cold buckwheat cakes and mince pie.

Tramp (heroically).—Throw in a small bottle of pepsin, madam, and I'll take the chances.

Mrs. Oldtimes.—These new notions about sterilizing milk and boiling water to drink are all nonsense. They make a heap of work all for nothing. I had eleven babies, and I ought to know something about it.

Young Mother.—And did your children all grow up to maturity?

Mrs. Oldtimes.—Two of them did.



LOVE'S MENU

Love fills the teeming earth with food,
With food of life unstained by blood;
God's word is written everywhere—
On fruitful trees and upland fair,
Thy food, the herb, the seed, the tree—
The earth an Eden blooms for thee.

—*Astley Walton*

The demand is often made of vegetarians that they explain why they discard the use of flesh meats. They are very willing to do so, but why should not meat-eaters explain why they choose the flesh of animals for food in place of fruit, grains, and vegetables, which God first gave to man. Meat-eating is the exception rather than the rule; for fully three-fourths of the population of the earth are vegetarians.

NOT A FAD

Vegetarianism is not a new idea; it is not a fad. The first food given to man was fruits, grains, and nuts. Later, after the fall, herbs were added to the bill of fare. It was not until after the flood that flesh food was permitted, and at that time the natural life of man was greatly shortened.

While permitting the use of flesh as food, the Lord has placed certain restrictions upon its use by classifying it,—the use of certain clean beasts as food being permitted, and the use of others denied as unclean. Careful instructions were also given against eating flesh food until the blood had been wholly removed. Thus partial pro-

The eating of much flesh fills us with a multitude of evil diseases, and a multitude of evil desires.—Porphyrises, 233 A. D.

vision was made against disease, which, though common in all flesh food, is found most in unclean animals, and in the blood of all.

ANCIENT VEGETARIANS

From the earliest dawn of history we learn of famous vegetarians,—brave, strong men, whose lives were filled with thought and action. Even among meat-eating nations, many of the greatest warriors, poets, and statesmen were vegetarians. Among these were Pythagoras, the famous writer, who founded a vegetarian society more than a thousand years before Christ; Cyrus the Great of Persia, "who was brought up on bread and water, and who, with his vegetarian army, conquered the then known world;" Seneca, the philosopher; Plutarch, "the father of history;" Cicero, the Roman orator; and scores of others whose lives are written in deeds and thoughts. Homer, the Grecian poet, wrote, more than three thousand years ago, that "the Pythagoreans (followers of Pathagoras) were the longest-lived and honestest of men."

THE PHYSICAL ENDURANCE OF VEGETARIANS

The following interesting facts on the subject of vegetarianism are given by Gautier, an eminent French authority on dietetics:—

"According to J. Sinclair, the Hindu messengers who carry despatches for long distances eat only rice, while covering each day, in running from one village to another, a distance of at least twenty leagues (sixty miles), and do this not for a single day only but for every day consecutively, week after week.

"The Russian peasants, who live upon vegetables, black bread, milk, and leeks, work from sixteen to eighteen hours a day, and their strength often exceeds that of American sailors.

Animal food is one of the greatest means by which the pure sentiment of the race is depressed.—Alcott

"The Norwegian peasants scarcely know the taste of animal food. They cover on a continuous run, however, in accompanying the carriages of tourists, a distance of three or four leagues without stopping.

"The modern Egyptian laborers and sailors, a class who, from time immemorial, have lived almost exclusively upon melons, onions, beans, lentils, dates, and corn, are remarkable for their muscular strength.

"The miners of South America, very temperate laborers, who never eat meat, carry on their shoulders burdens of two hundred pounds, with which they climb, twelve times a day, vertical ladders sixty to eighty meters high (one hundred ninety-six to two hundred sixty-two feet).

"The Turkish soldier is surpassing frugal. He drinks only water or lemonade, and lives upon a diet of rice and figs, scarcely ever touching flesh. It is well known that the vigor of the Turk is remarkable, and his courage indisputable. The porters of Salonica and Constantinople, who live upon the same diet, are proverbially strong; hence the saying, 'Strong as a Turk.'

"Addressing himself to his friend, Firmus, who abandoned the Pythagorean doctrine to become an eater of flesh, the philosopher Porphyry wrote as follows: 'It is not among the eaters of simple vegetable foods, but among the eaters of flesh, that one meets assassins, tyrants, and robbers.' "

DISEASED ANIMAL FOODS

The following notes on this subject are taken from class lectures given by Dr. Kate Lindsay:—

"All flesh food is contaminated by matter which is the result of tissue waste. A diseased condition of the tissues gives rise to a peculiar flavor of the meat. If one animal is fed upon the flesh of another animal, its flesh odor becomes strong. This is the reason why the flesh of carnivorous

Lord Byron refused to eat meat because, as he said, "It makes me ferocious."

animals is so strong, and why one carnivorous animal will seldom eat another even when starving. Vegetarian animals, of course, do not eat their kind, but carnivorous animals eat vegetable-eating animals. The flesh of vegetable-eating animals is sweet. The flesh of the horse that feeds upon corn, which contains a large amount of sugar, is very sweet, so much so that it is disliked for food on this account.

"Animals, like human beings, are subject to functional disorders. They are constructed much as we are, and, consequently, are subject to the same functional changes. They sometimes have dyspepsia. They sometimes have functional nervous disorders, and sometimes become insane. Animals have torpid livers and torpid skins; they have disordered lungs and bronchitis. Horses have the asthma. Animals sometimes lose their appetites, and at other times have voracious appetites. Sometimes we see an animal with its flesh tinged with a yellow color, the result of a disordered liver. When an animal has a torpid liver, the bile collects in the system just the same as it does in human beings. When a person has a torpid liver, he feels stupid and sluggish, because his tissues are poisoned by the waste substances which ought to have been carried off by this organ. This same condition is found in animals. Often active horses become sluggish, and have to be whipped or spurred to make them go. This is because their tissues are poisoned. Think of eating the flesh of an animal that is in this condition!

"The flesh of an animal is affected by the food it eats. The flesh of a hog that has fed upon dead carcasses is rendered totally unfit for use. The same is true of chickens. The milk of the cow is affected by the food she eats. Some kinds of food render the milk unfit for use. A Frenchman once tried the experiment of flavoring the flesh of

Thirty per cent of the poultry in England suffer from tuberculosis.—Life and Health

animals while they were alive, by feeding them foods containing different kinds of flavoring matter. He found that in this way he could give the flesh any flavor he desired.

"Animals are subject to functional disturbances. Those that are being reared for market are often shut up in stalls and close pens where the air they breathe is very impure. As a consequence, their systems become filled with these impurities; and their skins, livers, kidneys, and lungs, becoming inactive for want of exercise, do not do their work of eliminating the wastes from the system. These substances accumulate, and they gain flesh very rapidly. This is why the flesh of stall-fed animals is so highly flavored. This fattening process is a process of disease production. A butcher's statement is that there is not more than one hog in one hundred that has not abscess of the liver.

"Animals are also subject to contagious and infectious disease, and, in fact, to almost every disease that human beings may have. They are subject to cholera, consumption, scrofula, typhoid fever, and many other kinds of fevers. The milk from a cow suffering from typhoid fever is almost certain to be contaminated, chiefly by the germs being communicated through the excreta, which gets into the milk, but to some degree it may be communicated directly. The use of milk thus contaminated is one of the most frequent causes of typhoid fever in human beings. Milk is one of the most favorable cultures for typhoid fever germs.

"Animals suffer from consumption. They are very much exposed to disease. They have a great habit of licking one another, and in this way one animal contaminates another. The stalls of consumptive animals become contaminated, and if other animals are put into these stalls, they are very liable to become infected with the disease.

Vegetarians suffer little from thirst.
—Hygienic Review

Consumption is a germ disease which at first is only local, but by and by affects the whole constitution. It is very rarely cured. One-seventh of the whole human race in civilized countries die from this disease. In Switzerland, one-fourth of all the inhabitants die of it. Consumption is probably due more frequently to the use of the flesh of animals which have suffered from it than to any other cause. There is reason to believe that the germs of consumption are communicated directly from the cow to the milk. Chickens are known to have received consumption from the expectorations of a consumptive. High-bred animals are much more liable to be diseased than others, since they are kept up in stalls more than other animals, where they are weakened by high feed and inactivity, making them much more subject to infection."

VEGETARIANISM OF VITAL IMPORTANCE

Important reasons why lovers of pure, healthful living should discard the use of flesh food, particularly in this age of the world, are well stated by Mrs. A. L. Colcord in her excellent little book, "A Friend in the Kitchen." She says:—

"1. This is an age of disease. Animals are coming to be greatly diseased. The use of their flesh, therefore, tends to increase disease in mankind, and thus to shorten life.

"2. This is an age of intemperance. Flesh meats are all more or less stimulating. Their use, therefore, tends to increase this evil.

"3. This is an age of surfeiting. Meat-eating is, to a large degree, responsible for this. A well-known English writer on cookery says: 'No one will deny that the foods we are apt to eat too much of are those absent from a purely vegetarian fare, such as meat, game, fish, eggs, etc.,

The men who kept alive the flame of learning and piety in the middle ages were mainly vegetarians.—Sir Wm. Axon

upon which materials the culinary art seems exercised to tempt us beyond the satisfying of the appetite.'

"4. This is an age of vice and immorality. A meat diet tends greatly to increase this terrible evil.

"5. This is an age of violence and murder. The practice of killing and eating animals tends to harden men's hearts, to destroy their finer sensibilities, and thus to increase violence and crime."

In many countries no butcher is accepted on a jury trying a man for manslaughter.

HOW TO BECOME A VEGETARIAN

Reproach is sometimes cast upon the principle of vegetarianism by the careless, unintelligent teaching and practices of its friends. An extremist finds himself able to live and preserve health by following a radical fad. Others are persuaded to follow his example, and the result is disastrous.

From the conviction that the principles are right, many drop the use of all animal foods without studying the requirements of the body, or making any provision for substitutes. Even many who learn the value of nuts and nut foods as substitutes for meat, make the grave mistake of eating large quantities of these foods, which, although very nutritious, are somewhat difficult to digest, and sometimes bring on serious illness and stomach and skin disorders.

In changing from a meat to a vegetarian diet, the following suggestions should be carefully observed:—

1. Do not follow rules or suggestions arbitrarily.

2. Learn the needs of the body, and so select and combine foods as to supply the requirements.

3. Dietetic rules do not always apply in every case. One must study his personal needs.

Sir Isaac Newton, when writing his great work, "Principia," lived wholly upon a vegetable diet.

4. Do not make changes too radically nor rapidly. Reformation in diet should be intelligent and sure.

5. Avoid stimulants, condiments, and all rich or highly seasoned dishes, for they create a desire for flesh food.

6. Adopt regular, healthful habits of living, and thus assist nature in her efforts to adjust herself to the new and better way.

7. Eat the best food you can get, and then leave it alone. Do not worry about it.

8. Do not adopt a narrow, meager diet. The body requires fat and albumen. These are abundant in many foods besides meat.

9. Persevere persistently.

FOOD UNITS IN ONE POUND

Beef	912
Mutton	1,616
Veal	768
Fish	512
Fowl	1,104
Oysters	240
Potatoes	432
Milk	396
Corn	1,626
Rice	1,584
Peas	1,680
Bread	1,184
Chestnuts	1,808
Walnuts	3,136
Hazelnuts	3,088
Almonds (sweet)	3,024
Peanuts	2,624
Cocoanuts	2,688
Malted Nuts	2,448

"In the religious communities where the use of meat is forbidden, appendicitis is unknown."

VEGETARIAN NOTES

"That man must have had a palate covered o'er
With brass or steel, who, on the rocky shore,
First broke the oozy oyster's pearly coat,
And risked the slimy morsel down his throat."

Before the flood, when men were still living upon the heaven-appointed bill of fare,—nuts, fruits, and grains,—the average human life was nearly one thousand years. After the flood, when man began to subsist largely on flesh food, a rapid decline began in the length of human life. This is the record:—

Noah lived nine hundred fifty years; his son, Shem, six hundred; his grandson, Salah, four hundred thirty-three years; Salah's great-grandson, Rue, two hundred thirty-nine years; Rue's great-grandson, Joseph, one hundred ten years. By David's time the average age of men had been still further reduced to seventy years, and at the present time the average is forty-two years, or less than one-twentieth of man's original lease of life.—*How to Eat to Live a Century*

Pork is by no means a favorite food in Scotland. King James is said to have abhorred pork almost as much as he did tobacco. He said: "If I were to give a banquet to the devil, I would provide a loin of pork and a poll of ling, with a pipe of tobacco for digestion."—*Sir Walter Scott*

Yes, Agassiz does recommend authors to eat fish because the phosphorus in it makes brains. So far you are correct. But I can not help you to a decision about the amount you need to eat—at least with certainty. If the specimen composition you send is about your fair usual average, I should judge that perhaps a couple of whales would be all you would want for the present; not the largest kind,

Temperance means abstinence from all things not good or entirely innocent in their character.—Cicero

but simply good, middling-sized whales.—*Mark Twain's Letter to a Young Author*

"Ill digestion is most to be feared after flesh-eating, for it very soon clogs us, and leaves ill consequences behind it. It would be best to accustom one's self to eat no flesh at all, for earth affords plenty enough of things fit not only for nourishment but for delight and enjoyment."

The *London Daily Telegraph*, in describing the great naval battle between Russia and Japan, remarks: "As regards the question of diet, it is interesting to note that the Japanese fought solely on rice."

The national drink bill [of Great Britain] has fallen during the past five years by no less than £6,904,062 ($33,798,000). This coincides, it is said, with the rapid growth of the tendency to eschew flesh food.—*Physical Culture*

"It is a well-established fact that a leg of mutton caused a revolution in the affairs of Europe. Just before the battle of Leipsic, Napoleon the Great insisted on dining on boiled mutton, although his physician warned him that it would disagree with him. The emperor's brain resented the liberty taken with its colleague, the stomach; the monarch's equilibrium was overturned, the battle lost, and a new page opened in history."

"More than two-thirds of mankind do not eat animal food; and, except in America, it is rare that the strongest laborers eat any meat."

"The working people of Ireland live chiefly on potatoes. The peasantry of Lancashire and Cheshire—the handsomest tillers of the soil in England—subsist chiefly on potatoes and buttermilk."

Intemperance begins at our tables, in the use of unhealthful food.—Mrs. E. G. White

"In northern Europe the hardiest soldiers seldom taste of meat."

The following quotations from noted authorities, on the subject of "Vegetarianism," recently appeared in the *Australasian Good Health:—*

I have known men who prayed for a good temper in vain, until their physician prescribed not eating so much meat, for they could not endure so much stimulation. —*Henry Ward Beecher*

The natural food of man, judging from his structure, consists of fruit, roots, and vegetables.—*Prof. Baron Cuvier*

The apes and the monkeys, which man nearly resembles in his dentition, derive their food from fruits, grains, and nuts, and the close resemblance shows that man was from the beginning adapted for a frugivorous diet.—*Prof. Owen*

No physiologist would dispute with those who maintain that man ought to live on a vegetarian diet.—*Dr. Spencer Thompson*

The teeth of man have not the slightest resemblance to those of carnivorous animals, and whether we consider the teeth, jaws, or digestive organs, the human structure closely resembles that of the frugivorous animals.—*Prof. Wm. Laurence, F. R. S.*

It is, I think, not going too far to say that every fact connected with the human organization goes to prove that man was originally formed a frugivorous animal. This opinion is principally derived from the formation of his teeth and digestive organs, as well as from the character of his skin and the general structure of his limbs.—*Prof. Sir Charles Bell, F. R. S.*

A wrong course of eating or drinking destroys health, and with it the sweetness of life.—" Christian Temperance "

It is a vulgar error to regard meat in any form as necessary to life. All that is necessary to the human body can be supplied by the vegetable kingdom. I know that much of the prevailing meat diet is not merely a wasteful extravagance, but a source of serious evil to the consumer. —*Sir Henry Thompson, M. D., F. R. C. S.*

For those who are extremely broken down with chronic disease, I have found no other relief than a total abstinence from all animal food and from all sorts of strong and fermented liquors. In about thirty years' practice, in which I have, in some degree or other, advised this method in proper cases, I have but two cases in whose total recovery I have been mistaken.—*Dr. Cheyne*

We freely concede to the advocates of vegetarianism that, as regards the endurance of physical labor, there is ample proof of the capacity of their diet to afford the requisite sustenance.—*Dr. W. B. Carpenter*

That it is easily possible to sustain life on the products of the vegetable kingdom needs no demonstration for physiologists, even if a majority of the human race were not constantly engaged in demonstrating it, and my researches show not only that it is possible, but that it is infinitely preferable in every way, and produces superior powers both of mind and body.—*Alex. Haig, M. D., F. R. C. P.*

Chemistry is not antagonistic to vegetarianism any more than is biology. Flesh food is certainly not necessary to supply the nitrogenous products required for the repair of tissue; therefore, a well-selected diet from the vegetable kingdom is perfectly fit, from a chemical point of view, for the nutrition of man.—*Dr. F. J. Sykes, B. S., Medical Officer for St. Pancras*



A FINE ART

To be competent in the art of cooking one must have a knowledge of foods,—their nutritive value, combining qualities, and the proper methods of preparing them so that they may retain their natural flavors and nutritive elements.

The choicest food is often spoiled in its preparation. There is a lack of knowledge of the fundamental principles of good, plain, hygienic cookery. Young women in securing information, preparatory to keeping a home of their own, often make a serious mistake in imagining that the science of cookery consists chiefly in knowing how to make salads, cakes, and pastry. By experience they soon learn their mistake. A dessert prepared ever so daintily will not make amends for "sorry" bread, scorched beans, or poorly cooked vegetables.

A thorough knowledge of plain cooking is of primary importance. All would be better off without rich desserts; and when the plain, staple dishes are skilfully prepared, we scarcely miss the sweets. "The reason that cooking so often fails of its purpose," says Helen Campbell, "is that its practice is far below the rank of other human industries, and, therefore, is oftener more of a hindrance than a help. If man's clothes were made as badly as his bread is, or man's houses constructed with as little success as his dinners, there would be the same complaint raised in regard to tailoring and building as is now heard over cooking, and numbers of short-sighted reformers would clamor for a return to the simpler living of the coat of skins and the hollow tree."

Bad cooking is waste—waste of money and loss of comfort.—Smiles

GOOD COOKING

There is no dearth of cooking; in fact, if less were done, it would be better; but the trouble is, much of the cooking is not of the right kind. Food should be cooked to make it more palatable, more easily masticated, and more digestible. Proper cooking is a partial, preliminary digestion, as it produces the same changes in some of the food elements that the digestive juices do.

Many of the grains and most of the vegetables would be unfit for use without cooking. All foods containing much starch are more easily digested if properly cooked.

Cooking helps to break up the solid parts of the food, so that they can be more easily acted upon by the digestive juices. The different modes of cooking are boiling, steaming, broiling, braizing, roasting, baking, and frying.

BOILING

Boiling food is cooking it in a boiling-hot liquid. This should be at the boiling-point during the whole period of cooking. Violent boiling does not cook any faster than moderate boiling, and it impairs the flavor of the food. Water can not be hotter than it is at the boiling-point—two hundred twelve degrees Fahrenheit.

Simmering is slow, steady boiling, and is better than hard boiling for cooking many things.

Stewing is cooking in a small quantity of liquid just below the boiling-point, and is best accomplished in a double boiler.

STEAMING

It is better to steam foods that would lose a large per cent of their nutritive value and much of their flavor if immersed in water. Food may be steamed by placing it in a perforated dish, over boiling water, in a tightly closed vessel.

Whom God has joined in matrimony, ill-cooked joints and ill-boiled potatoes have very often put asunder.—Smiles

BRAIZING

Food is said to be braized when cooked in a closely covered baking or stewing pan in a hot oven. By this process it retains all of its flavors and juices. Cooking in this manner is a combination of stewing and baking, and is an excellent method for cooking many dishes. Meat is often cooked in this manner.

BROILING

Food is broiled by cooking over the coals or on a gridiron, by direct radiation or great heat. Only a small portion is usually cooked at one time by this method. Meat is often placed on the end of a pointed bar or spit, which is slowly rotated, thus exposing all parts of the surface to the heat.

ROASTING

Roasting is materially the same process as broiling. It consists in subjecting the food to the direct heat from an open fire, or placing in hot ashes; or meat is said to be roasted when cooked in a hot oven.

Food cooked in this manner retains its juices and flavors, as the intense heat immediately sears it on the outside. By attention and frequent turning, to subject the whole surface to the heat, quite a large portion of food can be cooked at once. The custom of barbecuing—cooking an animal, such as an ox or sheep, whole—is simply roasting on a large scale.

BAKING

Baking is cooking by hot air. This is one of the best modes of cooking, but requires much attention if good results are to be obtained. The hot air is dry and thirsty, and will soon absorb all the moisture, unless the food is very juicy. If the food is dry, a small basin of water set in the oven will help to keep it moist and prevent burning.

"It is a greater accomplishment to be a good cook than to be an author or a musician."

The oven should be kept at a moderate temperature, and if the food contains but little moisture, and requires long cooking, it should be covered or protected in some way.

If a gas or oil stove is used, the heat of the oven can be easily regulated. In order to secure satisfactory results, one must understand perfectly his stove or range. An oven thermometer is of much value.

FRYING

Frying is the cooking of foods in hot fat, and is the most unwholesome manner in which they can be prepared. Fats become decomposed by heating, form poisonous acids, and, unlike most foods, are rendered more indigestible. If cooked with other foods, the fat surrounds the particles, and prevents the action of the digestive juices. The gastric juice (the digestive fluid of the stomach) has no power to digest fat.

A continued use of fried foods will impair the digestion and ruin the health. In many homes the principal articles of diet, such as meat, eggs, vegetables, and even bread, are usually fried. Foods prepared in this manner are most difficult of digestion. Often the food is more or less scorched, besides being saturated with grease. This kind of diet lays the foundation for all kinds of stomach disorders, and, in fact, injures all of the digestive organs.

SLOW COOKING

If foods are hard, or it is wished to extract the juices, they should be cooked slowly. If they are to be boiled, they should be put to cook in cold water.

PREPARATION OF FOODS

Many foods need certain preparations before they are ready for cooking, such as stirring, beating, kneading, stretching, pulling, and folding.

"The proper cooking of food is a most essential requirement, especially where meat is not made an article of diet."

STIRRING

The purpose of stirring is to blend thoroughly the materials. It is performed by a round-and-round process, without lifting the spoon or ladle from the mixture. This is not necessarily done continuously in one direction.

BEATING

Beating is altogether different from stirring. This is a dipping and lifting process, and is performed in this manner that the mixture may be well filled with air. There should be no stirring with the beating, as that tends to eliminate the particles of air. Batter-breads and cakes may be made light without the use of baking-powders and soda, if thoroughly beaten, and baked in a hot oven.

KNEADING

This process is performed after the mixture is too stiff for stirring and is in the form of dough. When ready to begin kneading, dust the board lightly with flour, and place the dough upon it, keeping it in constant motion so that it may not stick. Kneading should not be done with the fingers, but with the palms of the hands. Use just enough flour on the hands and board to keep the dough from sticking, and no more.

STRETCHING, PULLING, AND FOLDING

These processes are just what is indicated by their names, and serve as a means of incorporating air into the mixture.

MEASURING

The cook should be careful to measure everything used in the preparation of foods. Those who do not are usually the ones who are not successful cooks. Hit-or-miss combinations are likely to give hit-or-miss results.

A half-pint measuring cup is the standard measure for

"Bad cooking diminishes happiness and shortens life."

all recipes. This is the same size as the common china teacup, but is more convenient, as it is graduated.

Flour, sugar, and butter, in recipes calling for tablespoonfuls, should be measured rounding, as they mean a given weight.

A cupful of dry material means the cup level full, unless it is otherwise specified.

A cupful of liquid means all that the cup will hold.

The silver tablespoon and teaspoon in common use are the standards for measuring.

Four saltspoonfuls make one teaspoonful.

Forty drops equal one teaspoonful.

Four teaspoonfuls make one tablespoonful.

Four tablespoonfuls make one gill.

Two gills, one cupful.

Two cupfuls, one pint.

Two pints, one quart.

Four cupfuls of sifted flour is one pound.

Two and one-half cupfuls of granulated sugar is one pound.

Two and one-half cupfuls of meal is one pound.

Two cupfuls of any of the coarse grains, about one pound.

Two cupfuls of butter, one pound.

One heaped tablespoonful of butter, one ounce.

Two cupfuls of a liquid, as a rule, is one pound.

Ten eggs, medium size, make one pound.

Five rounding tablespoonfuls of flour or sugar is one cupful.

A rounding tablespoonful of flour weighs half an ounce.

"The most expensive food is spoiled when served up burnt or tasteless; the cheapest may be delicious with the proper seasoning."

The foundation of a happy home is laid in the kitchen.
—Marion Harland

VEGETABLES

Care should be taken in cooking all vegetables, for if not thoroughly cooked, they are hard and fibrous, and if cooked too long they become water-soaked or have a strong flavor.

POTATOES

Potatoes should be washed before paring. A vegetable brush or coarse cloth is good for this purpose, and especially for cleansing the skin if they are to be cooked without paring.

The most nutritious part of the potato is next to the skin, so if the skin is removed, the paring should be as thin as possible.

To boil, they should be put into boiling water, and should be kept above the boiling-point during the whole time of cooking. Drain as soon as tender, and serve at once.

Potatoes when cooked with their "jackets" on are more nutritious, as the mineral elements contained in them are easily soluble in water, and when the peeling is removed, there is nothing to prevent them from escaping.

Baked potatoes are more quickly and easily digested than those cooked in any other way. The starch of the baked potato is more easily digested than any other starch. Ripe, mealy potatoes are the best for baking. They should be put into a hot oven, and the temperature kept undiminished during the period of baking.

To prevent baked potatoes from bursting, prick them before baking, so the air can escape.

In the spring, when even the best potatoes will turn dark when cooking, add to the water in which they are boiled a cup of milk. This will improve them considerably, making them white and mealy.

Diet cures more than doctors.
—Scotch Proverb

LEGUMES

Dried peas, beans, and lentils require prolonged cooking to render them palatable and digestible. If soaked overnight, they cook much more quickly, and much of the strong flavor is removed. They should be put to cook in cold water, for if put into hard, boiling water, they will not soften. Soft water is preferable for cooking the legumes. They should be cooked slowly, and with little or no fat, as they are rich in themselves and do not need it, and the grease serves to make them indigestible. Do not add salt until they are nearly done, as it hinders the softening process.

The time for cooking will vary from one to eight hours, according to their age.

TIME REQUIRED FOR COOKING DIFFERENT VEGETABLES

Potatoes, pared, to boil, if of medium size, twenty minutes.

Potatoes, unpared, to boil, if of medium size, twenty-five minutes.

Potatoes to steam, twenty to forty minutes.

Potatoes to bake, thirty to fifty minutes.

Green peas, twenty to thirty minutes.

Green corn, fifteen to twenty minutes.

String beans, forty to sixty minutes.

Asparagus, forty to sixty minutes, when young.

Cabbage, if tender, fifty minutes.

Cauliflower, twenty to thirty minutes.

Beets, young, sixty minutes; if old, three or four hours.

Summer squash, twenty to forty minutes.

Winter squash, about sixty minutes.

Parsnips and turnips, young, forty to fifty minutes.

Simplicity is the highest art.
—"A Friend in the Kitchen"

Carrots, one to two hours.
Tomatoes, one hour or more.
Spinach, thirty to sixty minutes.
Vegetable oysters, one to one and one-half hours.

GRAINS

Much of the nutritive value and digestibility of grains depend upon their being thoroughly cooked. They contain a large percentage of starch, which, if not properly cooked, is not easily digested. The following facts concerning starch as a food are given by David Paulson, M. D.:—

"1. Starch comprises practically four-fifths of our daily food.

"2. Raw starch can not be acted upon until it reaches the small intestines, and then only with difficulty.

"3. It is possible to perform a large share of the digestion of starch by applying sufficient heat.

"4. Slightly cooked starch is not digested much more readily than raw starch, and it easily ferments and creates disturbance in the stomach.

"5. The so-called 'mushes,' as ordinarily cooked, belong to class four.

"6. The starch in bread which has been cut in slices and toasted brown all the way through, is carried as far through the various stages of digestion as can be accomplished by heat."

COOKING GRAINS

The different preparations of grains should be cooked all the way from one to ten hours. The fine grains, and those that have been rolled and partially cooked in their manufacture, do not require as long cooking as the coarse ones, like whole wheat, cracked wheat, grits, pearl barley, hominy, etc.

Grains can be best cooked in a double boiler. The inner

It is important that we relish the food we eat.
—" Christian Temperance "

cup of the boiler should be placed over the fire until the milk or water is boiling before the grains are stirred in. After they have boiled up well, place in the lower part of the boiler, and if it is desired to have them moist when cooked, cover closely; if preferred dry, leave them uncovered.

If any water is added during the process of cooking, it should be boiling hot.

Grains are usually served with sugar and cream or milk, but they would be more healthful if served with cream only. Milk and sugar is not a good combination.

COOKING FRUIT

As fruit is a valuable article of diet, and should be eaten at all meals, it is important that it be prepared in the best manner. The juices of perfect, ripe fruit, if eaten fresh, are effective germ destroyers in the stomach. Firm-meated fruit, if not quite ripe, is more wholesome when cooked. Cherries, apples, plums, prunes, and pears are more easily digested if cooked. Peaches, apricots, figs, grapes, and berries are best eaten raw.

Fruits should not be cooked in tin, brass, or iron vessels. The acid in the fruit is liable to form poisons if it comes in contact with such metals. Porcelain-lined or granite-ware should be used. To prevent the fruit from turning black, use a silver knife for paring, and cook at once. Some fruits will discolor very quickly if left to stand exposed to the air after peeling.

Fruit should be cooked in a small quantity of water, and the necessary sugar added just before taking it from the fire. If cane sugar is cooked with the acid fruit, the sugar is converted into glucose, and loses more than half of its sweetening properties.

Fruits are best if cooked slowly. They lose much of

"The many dishes usually prepared for dessert should be dispensed with."

their flavor and shape if cooked by hard boiling. Unripe fruits require longer cooking than ripe fruits.

Many of the more meaty fruits, such as apples, pears, quinces, etc., are more rich and delicious if baked. After washing thoroughly, place in a granite baking dish, add a little water, sprinkle lightly with sugar, and bake in a moderate oven. Tomatoes are also very nice when baked. No water should be added to them, as they are juicy enough of themselves. In selecting fruit to bake, have it as nearly uniform in size as possible.

COOKING DRIED FRUIT

The chief art in cooking dried fruit is simply to remember that "haste makes waste." The one rule which, if followed, always leads to success (provided the fruit is of a good quality) is this: Take plenty of time about everything except washing the fruit.

CARELESSNESS IN PREPARATION

The unpopularity of dried fruit in many households is due to cooks who, after carelessly picking it over, "slop" it through two or three waters, letting it lie several minutes, perhaps, in each, and then, after soaking it awhile in just enough water to swell it up to a state of dry corkiness, put it into fresh water, with a cupful or two of sugar, and boil it rapidly for perhaps half an hour. This is all wrong, from beginning to end.

PROPER PREPARATION

The one essential in preparing dried fruit is to preserve jealously every atom of flavor, and, at the same time, to restore it as far as possible to its original fresh and juicy condition before exposing it to the action of heat. Special care should be exercised in looking it over. With a sharp knife cut off each bit that is bruised, discolored,

"The unwholesomeness of food is quite as often due to bad cookery as to improper selection of material."

worm-eaten, or moldy, and then plunge the whole into a large pan of cold water, and deftly and swiftly go through the process of washing it thoroughly. Transfer quickly to a colander, and after draining for a moment, rinse it through a second water as quickly as possible.

SOAKING

The next process is that of soaking, which is necessary in order to restore to the fruit, as far as possible, the moisture of which it has been deprived by drying. As it required time to remove this moisture, so it will require time to restore it. From twelve to twenty-four hours is none too long to allow for this.

Use a large graniteware or crockery dish and a generous quantity of water,—enough to cover the fruit to the depth of an inch or two,—and then, in order to admit the air and at the same time keep out every particle of dust, lay a large spoon or slender stick across the dish, and cover the whole with a clean cloth.

If the fruit is put to soak one morning, it will be ready to cook the next. Take it out of the water carefully, handful by handful, and put into the kettle in which it is to be cooked. Allow the water left in the pan time to settle, then drain off onto the fruit, leaving the dregs. More water may be added if necessary, as the fruit is much nicer if there is sufficient juice to cover it when cooked.

COOKING

An hour's gentle boiling on the back of the range, where there is no danger of its burning on, will be sufficient for nearly all kinds of fruit after the thorough soaking. Add sugar sparingly, as most fruit prepared in this manner requires but little sweetening. As in the case of fresh fruit, it should be added just a few minutes before re-

Study simplicity in the number of dishes, and variety in the character of the meals.—" Christian Temperance "

moving from the stove. Use a silver spoon, and stir it gently, in order not to mash the fruit, which, if properly treated, will be almost as perfect in form as in flavor. Allow it to boil up once or twice, and your work is complete.

APRICOTS

Apricots treated as just described are simply delicious, —luscious, golden-yellow slices, half submerged in a rich, amber syrup, to which any addition of sugar seems wholly superfluous to those who appreciate the flavor of this delightful combination of peach and plum.

PEACHES

Peaches are also most satisfactorily prepared in this way, but should generally be cooked fifteen or twenty minutes longer.

PRUNES

Prunes prepared in the manner previously described are a positive revelation to those who have known them only in the hard, dry, shriveled, and generally repellent form in which they usually appear. They assume a gracious plumpness of physique, a smooth and shining complexion, and a juiciness and melting tenderness of disposition which render them captivating in the extreme, and even the most inveterate of prune haters—and they are many—are conquered when they behold them in this most attractive form, and, having tasted, taste and taste again.

APPLES AND PEARS

One has to be a little careful about apples and pears, as there is a great deal of difference in the quality of these fruits, some kinds being sharply acid, and others being so tasteless that lemon as well as sugar is necessary to make them palatable. Tasting after the fruit is stewed is the only way to decide what additions are necessary,

"Simple grains, fruits, and vegetables have all the nutrient properties necessary to make good blood."

as no general rule can possibly cover such a variety of conditions. It should be especially noted, however, that where lemon is to be added (the juice and grated rind being preferable to the slices), it should be put in after the sugar is added and thoroughly dissolved. This rule applies also to the making of lemonade, since adding the lemon to the water first makes a chemical change therein which gives to it a hard, acrid quality, to overcome which an excessive amount of sugar must be added. Try both ways and be satisfied.

RAISINS, DRIED GRAPES, AND CHERRIES

Raisins, grapes, cherries, and dried berries are all very good when treated as just described. Excellent pies and puddings can be made from all kinds of dried fruit, remembering only that in preparing it for such purposes, just enough water should be used to soak it thoroughly, and leave enough in the dish to keep it from burning on during cooking.

BAKING DRIED FRUIT

A delicious variation from stewed fruit may be made by cleaning and soaking as directed, and then putting the fruit into a deep earthen baking dish or crock, with a cupful of sugar to a pound of fruit (dried), and water enough to cover it to a depth of at least two inches. Cover this closely and put into the oven, and let it stay, exposed to a gentle baking heat, all day long, or until the juice becomes a syrup-like jelly. The product will be found to have a special flavor and consistency which will commend it to the most critical palate.

BUTTERS AND MARMALADE

Delicious butters can be made from all kinds of dried fruit by stewing them as directed, then passing them

Body and mind are much influenced by the kind of food habitually depended upon.—O. W. Holmes

through a coarse sieve, and then returning the smooth pulp to the kettle, boiling it, with constant stirring, until it is of the right consistency, and adding the sugar a few minutes before removing from the range.

Marmalade is made in the same way, but must be boiled much longer, as it is to be much thicker, and sugar must be added,—a pint to a pint of pulp,—after which it should be cooked at least five minutes, being careful to keep it stirred up from the bottom, as it scorches very readily.

HELPFUL HINTS

In making paste, or thickening for gravy, add a pinch of salt to the flour and water, and it will mix much more smoothly and easily. Use a fork instead of a spoon for blending.

To make certain when a cake is done, put your ear down and listen; if it has ceased sounding, it is done. This is easier than trying with a straw.

Try a good, strong can-opener for cutting open a Hubbard squash, and you will never use any other instrument.

A very little corn-starch mingled with salt will prevent it from packing, and will not interfere with its flavor.

Drop a little lump of sugar among the turnips while cooking; it will improve them very much.

If you find your soup is too salty, add a few slices of raw potato and cook a few minutes. The potato will absorb the salt.

Avoid the unpleasant odor from boiling vegetables by placing a piece of charcoal in the pot.

Improve the flavor of apple sauce by adding a pinch of salt.

"If, when serving tomatoes raw, you do not wish them to have the slightest taste of cooked tomatoes, as they will when they are immersed in hot water, rub the surface of

Practical knowledge of wholesome cookery ought to form a part of the education of every young woman.

the tomato all over with the flat edge of a sharp knife, being careful not to break the skin, and it will peel nearly as easily as when hot water is poured over it."

Adding sugar to fruit juice does not change the acid. You may put sugar into lemon until it makes a syrup, but the acid is there just the same. Fruits that are made very sweet with cane sugar do not harmonize with the sugar or with anything else.—*Rossiter*

"When a maid was dusting library shelves, her mistress told her she was at liberty to borrow any book she saw. The offer was gratefully accepted, and that evening the family were convulsed when the maid entered to take advantage of the offer, and, selecting the 'Autocrat at the Breakfast Table,' departed, with the remark that she chose that especial volume because she hoped to find in it some new ideas for the morning meal. This anecdote leads to a thought for the kitchen. The maid, as a usual thing, has no access to the family library, and the few dilapidated cook-books are stored away in a corner of the pantry shelves with the pans and bowls and spices. Why should not the kitchen literature have the dignity of literature? It will be handy to place it on a hanging shelf, on the top of which can stand the clock; then the covers of the volumes will be held in place, and the titles will be at a readable angle. A scrap-book for clippings from the domestic departments of magazines and papers, and a book on hygiene, may occupy a place along with the ordinary cook-books."

"The volumes most frequently stolen from the Springfield city library are cook-books," says the librarian. "I don't know whether it speaks well for the town or not," he says. "It shows that the women have an ambition to learn to be good cooks, and that our cook-books are more fascinating than fiction."—*Scrap-book*



BREAKFAST BEST OF ALL



Breakfast! Come to breakfast!
Little ones and all,—
How their merry footsteps
Patter at the call!
Break the bread; pour freely
Milk that cream-like flows;
A blessing on their appetites,
And on their lips a rose.



Dinner may be pleasant,
So may the social tea,
But yet, methinks the breakfast
Is best of all the three.
With its greeting smile of welcome,
Its holy voice of prayer,
It forgeth heavenly armor,
To foil the hosts of care.

—*Mrs. Sigourney*



As he [a man] thinketh in his heart, so is he.
—Bible

AN ATTRACTIVE DINING-ROOM

The dining-room is the chief gathering-place of the family, and it should be made so homelike, with an all-pervading influence of rest and good cheer, that for a little time every member of the family may lay aside "dull care" and enjoy to the full the bounties so necessary to physical sustenance.

Bright, cheerful surroundings lend enjoyment to the meal, and aid in its digestion. Families that are not able to provide as pleasant a dining-room as they would like may still make up the lack by hope and cheerfulness.

The essentials of a cheerful dining-room are plenty of light, sunshine, fresh air, a few plants, fresh-cut flowers, appropriate pictures on the walls, and, with all these, cleanliness and taste in arrangement. The furniture need not be expensive, but let it be of a durable quality, and so arranged as to make the service of the meals easy and in good taste.

THE DINING-TABLE

Lay the table with clean, well-laundered, white linen. Decorate it with a bouquet of flowers or a choice plant. Use care and good taste in placing the silver and china; for there is a certain refining influence about a well-arranged, carefully-set table that a family really needs, and when the children grow up and go out from home, it will never be forgotten. The shining silver, glass, and china, which show carefulness in washing and polishing, also add freshness and beauty to the table, and are all incentives to etiquette and good behavior. If the linen is soiled, and the table carelessly set, the room untidy, and everything in disorder generally, there is but little tendency to refinement and good manners. If well ordered, every part of our home life may be educational.

As a man eateth, so is he.
—German Proverb

BANISH CARE

Good cheer is the best of medicines. At meal-time lay aside worry and taxing thought; cast off care and anxiety; banish grief and fear; and let the mind be filled with pleasant thoughts. If one goes to the table fatigued, excited, angry, overanxious, or in a great hurry, the food eaten is



Order and Social Joy

worse than wasted. The unsettled state of the nerves disturbs the entire system, diminishes the flow of the digestive fluids, and digestion is retarded.

Take time to eat. The best food, if hastily eaten, may clog the system and bring on disease.

REGULARITY

Regularity in eating is quite as essential to the health of the body as is good food. Whether two or three meals are eaten, they should be at a regular time, and far enough

As a man eateth, so he thinketh.
—Kellogg

apart to allow at least an hour for the stomach to rest after completing the process of digestion, before giving it more work to do. Ordinarily the stomach requires five hours to digest a meal.

"The habit of regularity in eating should be cultivated early in life. Children should be taught to be regular at their meals, and to take nothing between meals. This rule applies to infants as well as to older children. The irregularity usually practised is undoubtedly one of the greatest causes of the large number of deaths among infants from disorders of the digestive organs, shown by our mortuary records."

PROPER NUMBER OF MEALS

If the digestion is slow, two meals are generally better than more, as it seems to be all the stomach has time to dispose of properly. Some people whose assimilative powers have become impaired by disease, require more nourishment than they get from two meals; for such, a third light meal is beneficial.

If three meals are eaten, they should be so arranged that the last meal of the day can be taken three or four hours before retiring, so as to give the stomach time to finish its work before time to retire. If the health of the stomach is to be preserved, it must be given regular times for work and rest.

EATING TOO FREQUENTLY

The stomach is susceptible to education, and may be taught to desire food many times a day; but yielding to these desires would be like yielding to any other bad habit. A case is reported by a German authority of a girl of eighteen years who ate regularly twelve times a day, consuming great quantities of food.

"Do not bring disagreeable things to the table in your conversation any more than you would in your dishes."

Overtaxing the digestive organs produces a feverish condition of the system, and the result is dyspepsia, and a long list of diseases following after.

Treat the stomach wisely, giving it proper food at proper times, with sufficient time for rest.

EATING BETWEEN MEALS

Eating between meals is one of the prevailing evils, especially of childhood. It is a dyspepsia-producing habit. If during the process of digestion more food is taken into the stomach, the whole mass must be retained until all is digested. By its remaining too long in the stomach, germs begin their work, and fermentation and a sour stomach are the result. If this habit is indulged, disease is inevitable. If children are taught from infancy to take food only at regular intervals, this habit is as easy to form as is the one of eating six or eight times a day. Water and fruit juice are the only things admissible between meals.

SIMPLICITY OF DIET

Two or three kinds of food at one time are more healthful than a great variety. Let the variety be at different meals. If many kinds are taken at one time, there are almost sure to be food combinations requiring different periods of time for digestion. Some will digest quickly, and fermentation will take place before the other is in a condition to leave the stomach.

Let the food be prepared simply, without spices or rich seasonings, as such food encourages an appetite for tobacco and strong drinks. Froebel says: "Always let the food be simply for nourishment—never more, never less. Never should food be taken for its own sake, but for the sake of promoting bodily and mental activity. Still less should the peculiarities of food, its taste or delicacy, ever become

"Overeating is intemperance just as surely as is liquor drinking."

an object in themselves, but only a means to make it good, pure, wholesome nourishment; else in both cases the food destroys health." Although the diet of the people of the Orient is characteristic for its simplicity, they are noted for their hardiness and endurance.

"One great reason why I never had a really sick day in my life," said Robert Collyer, "was that as a boy I lived on oatmeal and milk and brown bread, potatoes, and a bit of meat when I could get it, and then oatmeal again."

OVEREATING

"The sin of this age is overeating and gluttony, and the crop reaped from this sowing is indigestion, dyspepsia, rheumatism, consumption, and other diseases, which cut short the life." One of the chief causes of overeating is the great variety of food placed upon our tables. The person who yields to the demands of appetite and eats too much, is weakening his powers and fostering an appetite for strong drink.

We receive health and strength from the amount of food we digest and not from the amount we eat. If more is eaten than can be assimilated, there is trouble; for the surplus is soon attacked by germs, and the process of fermentation and decomposition begins.

PROPER AMOUNT TO EAT

The amount of food required depends upon the age, habits, occupation, and physical condition of the individual. One who is actively engaged in physical labor, requires, and can digest, more food than a person of sedentary habits.

Enough food of the right quality should be eaten to supply the needs of the system. If one is to be subjected to severe mental work, without physical exercise, it is best to lessen the quantity of food, as it will be impossible under

Thorough mastication is a benefit both to the teeth and to the stomach.

such circumstances for the digestive organs to do their usual amount of work. Many make a mistake in this, and then wonder why they have an attack of indigestion.

A young, vigorous person who is still growing, requires more food than a person of mature years, as he must not only support the daily wastes of the system, but supply material also for physical growth and development. Later in life less food is required. Usually elderly people are less active, their powers of digestion and assimilation are impaired, and they should eat no more than can be properly digested without overtaxing the system. As no specific rules can be given, each one must study his own physical condition, and be his own judge as to the amount of food to be eaten. It is better to rise from the table able to eat a little more than to overtax the stomach with more than it can care for. Food eaten in excess of what is required is worse than wasted. Never eat a little more than you need, just to save it.

EATING TOO FAST

If time for eating is limited, curtail the amount of food rather than eat too hastily. If time is not allowed for the teeth to do their work of grinding, the food passes into the stomach in lumps, unmixed with the necessary saliva for perfect digestion, and the gastric juice is powerless to act upon it. If one is inclined to hasty eating, it is better to eat dry, hard food, as this will insure at least some mastication. A little food properly eaten nourishes the body more than double the amount bolted.

DRINKING AT MEAL-TIME

Much water or liquid of any kind taken with the meals diminishes the secretions of the salivary glands and encourages little mastication. Drinking to wash down the food quickly is one of the evils accompanying hasty eating. Eat

Cattle know when to go home from grazing, but a foolish man never knows his stomach's measure.—Scand. Proverb

slowly, allowing the saliva to mingle with and moisten the food, and there will be less desire for drinking. If food is made hot with condiments, it is almost necessary to take some kind of drink to relieve the irritation. When very dry food is eaten, a small amount of liquid at a temperature that will not interfere with digestion will do no harm. But the best time for drinking is an hour or two before or after meals. "There is a time to eat and a time to drink, but these times should not come together." The desire for water at meal-time is often only the demand of a bad habit.

PROPER FOOD COMBINATIONS

Two important principles should be observed in combining foods:—

First, the combination should be such as to bring to the body the proper food elements in the right proportion.

Second, the foods should be so combined that there will be harmony in the digestive process. Food which is digested in the stomach should not be mixed with food that requires long intestinal digestion. Combine foods that will digest together in about the same length of time. Albuminous substances, with the exception of casein, are digested chiefly in the stomach. Starchy foods are digested in the mouth and intestines.

"The stomach may be trained to digest meat, milk, or bread; but it is utterly impossible for it to digest all food substances at the same time. This is just as impossible as it is for a man to be working as a blacksmith and training for a soldier at the same time. If we mix too many kinds of foods together, we are certainly making trouble. All breads or cereals digest well together. All fruits and nuts digest well together; but meat is a bad thing in combination with most other foods. An exclusive diet of meat is far easier of digestion than a mixed diet. That is why multi-

A stomach that is seldom empty despiseth common food.
—Horace

tudes of people who have suffered from indigestion, when put upon an exclusive meat diet, feel better. An exclusive milk diet often agrees with an invalid. Some people put upon an exclusive bread diet would feel better, because the stomach can digest each one of these different articles by itself, but not the combination."—*London Good Health*

"Milk and apples digest in about the same time, and are a good combination. The fact that fruits are acid is no reason why they should not be eaten with milk. The acid simply curdles the milk but does not sour it. It simply separates the whey from the casein. Instead of making it more difficult of digestion, it facilitates its digestion. Taking acid with milk prevents large, hard curds from being formed in the stomach."—*Kate Lindsay, M. D.*

The albuminous element of peas, beans, and milk is casein, which is digested chiefly in the intestines, thus making them an excellent combination.

Vegetables and acid fruits are one of the worst food combinations.

Grains and milk, grains and fruits, grains and meats or eggs, and grains and vegetables are considered to be good combinations. Grains, sweet fruits, and milk, and meat and vegetables are fair combinations. Fruits and vegetables, milk and vegetables, and milk and meat are bad combinations.

Acid fruits should not be eaten with starchy foods, as the acid prevents the digestion of the starch.

It is not possible to give definite rules that every one can follow in the matter of combining foods. What agrees perfectly with one is poison to another.

"A meal! What is it? Just enough of food
To renovate and well refresh the frame,
So that with spirits lightened, and with strength renewed,
We turn with willingness to work again."

Unquiet meals make ill digestion.
—Shakespeare

MAN'S POINT OF VIEW

"Most of us are plain men, fond of our dinner, as a healthy man should be, but fonder still of our sweethearts and wives, let us hope. Try us. A moderately cooked dinner—let us even say a not-too-well-cooked dinner—with you looking your best, laughing and talking gaily and cleverly,—as you can, you know,—makes a pleasanter meal for us, after a day's work is done, than that same meal, cooked to perfection, with you silent, jaded, and anxious, your pretty hair untidy, your pretty face wrinkled with care concerning the sole, with anxiety regarding the omelet."

MENU FOR TO-DAY

"What do you want for breakfast, dear?"
"My wants are all in mind quite clear:
You, with your cheerful morning smile,
And a pretty dress, my thoughts to beguile
Into thinking of flowers, an earnest word
That will all through my busy day be heard,
And make me sure that my morning light
Beams strongly true, e'en while dancing bright.
Be certain to give me these, all these,
And anything else that you can or please.

"But dinner,—what do I want for that?
Well, dear, when I enter and doff my hat,
And turn to the table, I want to see you
Standing just as you always do,
To make me lose all the forenoon's fret,
And cheer for the afternoon's work to get;
Tell me all your news, and I'll tell mine,
And with love and joy and peace we'll dine.
Be sure to give me these, all these,
And anything else that you can or please."

"And what for tea? Have you any choice?"
"Yes, dear, the sound of your gentle voice,

"Galloping consumption at the dinner table is one of the national disorders."

And your gracious presence. I always feel
The cares of the day like shadows steal
Away from your soul light, and evening rest
Comes just in the way I love the best.
So when you are planning our twilight tea,
With a special thought in your heart for me,
Be certain to give me these, all these,
And anything else that you can or please."

ITEMS

You must come to the table rested and happy, and take plenty of time to eat your meals. Cheerfulness makes the blood flow more freely, and every little cell that has to do with digestion works with a will.—*Rossiter*

At meal-time cast off care and taxing thought. Do not be hurried, but eat slowly and with cheerfulness, your heart filled with gratitude to God for all His blessings. —*Mrs. E. G. White*

The less the attention is called to the stomach, the better. If you are in constant fear that your food will hurt you, it most assuredly will. Forget your troubles; think of something cheerful.—"*Christian Temperance*"

Occasional fasting is hygienic. It gives the stomach a chance "to catch up with its work." To eat nothing but fruit one day in the week is a great preventive of headaches, nervousness, taking cold, and loss of sleep.

To rise at five and breakfast at nine; to dine at five, to bed at nine, will make you live till ninety-nine.—*French Proverb*

"A physician is authority for the statement that family jars have as much to do with dyspepsia as unhealthy food. When one goes to the table worried, unhappy, or cross, the nerves disturb the entire system to such an extent

There should not be many kinds of food eaten at any one meal.

as to retard digestion, he says. This is not a new idea, but it will bear frequent repetition."

"A rich man sat him down one night to dine;
Rare was his food, superb his priceless wine.
A poor man hungry lurked without the gate,
And craved a crumb from off the rich man's plate.
Yet neither rich nor poor man ate that night;
One had no food, and one no appetite."

One of the best remedies for obesity is to eat only one thing at a meal. It does not matter greatly what that one thing is, whether it is any one kind of fruit, or any one grain. The prescription is, Eat one article only at one meal.

Unless a person has a pressing engagement with his own funeral, what sense is there in hurrying with his meals? —*Horace Fletcher*

WOMAN

"They talk about a woman's sphere,
As though it had a limit;
There's not a place in earth or heaven,
There's not a task to mankind given,
There's not a blessing or a woe,
There's not a whisper, Yes or No,
There's not a life, or death, or birth,
That has a feather's weight of worth,
Without a woman in it."



FALSE FLAVORS

"To keep in health this rule is good:
Eat only plain, unpeppered food,
Not too much salt, not too much sweet,
Use fruit instead of sickly meat,
And drink but little when you eat."

Condiments are substances which are not foods, but which are added to foods to impart flavor. It is a mystery how they ever came into use. Civilized man is the only one of God's creatures who is unwilling to eat food flavored as the Creator has given it. Nature has given to all foods flavors which recommend them to the undepraved appetite.

By the use of condiments, the nerves of taste become so benumbed that they are unable to detect the delicate flavors of the different kinds of food, and to many persons they are wholly unknown.

Under the head of condiments may be placed pepper, cinnamon, mustard, cloves, allspice, nutmeg, ginger, pepper-sauce, vinegar, etc.

NATURE OF CONDIMENTS

Condiments are defined as articles which add nothing to the nutritive value of food; they simply make it taste better. But this is wholly a matter of habit. The Englishman would object to having his food seasoned with asafetida because he is not used to it, while the Frenchman considers it a delicate flavoring.

All condiments are poisons, and when used in any considerable quantity, clog the liver and irritate all the digestive organs.

"The brain nerve energy is benumbed and almost paralyzed by overeating."

Applied to the skin, they will blister. The mucous membrane of the stomach is inflamed by their use, and after they are taken into the blood, they circulate to the tissues and do much mischief.

It is the duty of the liver to eliminate these substances from the blood, and, in consequence, it suffers more than any other organ of the body.

Condiments are used most in hot countries, and, consequently, diseases of the liver are almost universal.

People who use condiments to excess claim that their food will not digest if eaten without them. To some extent this is true. Their stomachs have become so benumbed that unless they are goaded by these irritants, they will not secrete sufficient gastric juice to perform the work of digestion.

A stomach in this condition must be allowed time to rest before it will be able to relish simple food.

PEPPER

Pepper is probably more universally used than any other condiment. It was in use long before the Christian era, and, according to late statistics, its use is not diminishing. It is said that thirteen million pounds of black pepper are consumed annually in the United States alone. At the retail price of forty cents per pound, this would amount to over five million dollars.

OVEREATING

One of the greatest causes of gluttony is the use of condiments. They stimulate the appetite, and cause people to overeat. The more simple the food, the better.

INCENTIVES TO STRONG DRINK

Highly seasoned food leads to intemperance in drinking as well as in eating. The irritated, inflamed condition

To work the head, temperance must be carried into the diet.—Beecher

of the alimentary canal caused by the hot food, creates a craving for something stronger.

All stimulants must be continually increased in quantity, or they soon lose their effect. The same is true of the person who habitually takes some drug; to maintain the effect, the dose must be continually increased. The poisons in the drug and in the condiments have such a stimulating effect upon the system that there is a constant clamoring for something stronger.

The loving mother who places rich and highly seasoned food upon her table for her husband and children is surely paving the way for tobacco and strong drinks. A perverted taste and appetite created by wrong methods of cooking and eating are accountable for much of the misery and sorrow abroad in the world to-day.

"Nearly the whole American people," said Dr. Jackson, of the Dansville Sanitarium, New York, "are living from birth onward in such a way as to render drunkenness not only possible but probable to immense numbers of them. . . . Men have no moral right to live personally or socially, or to have their children brought up, so as to be subjected to constant or intermitting excitement of the heart and all the other vital organs of the body. Yet this is the uniform, not to say universal, practice. I simply mean that American people so live as to subject themselves and everybody who lives with or about them, over whom they exercise any personal influence, to habitual exaltation of vital activity. . . . While the child lies in the cradle there may originate the slow but sure processes (from mother's milk, formed from unwholesome food, etc.) which in years to come will make him a drunkard.

"From this state of more or less mild stimulation seen so often in childhood to that of gutter drunkenness, the chain is unbroken; every link is complete. Keep on stim-

"Eating merely to please the appetite is a transgression of nature's laws."

ulating the children, and the more you do so, the more they will desire, and the more they will need to be stimulated, until from eating exciting foods and drinking stimulo-narcotic drinks, they will use drinks which are more intensely stimulating. . . . In popular phrase, an intoxicated person is one who is blood poisoned. The country is full of intoxicated persons. . . .

"If we would have an end to drunkenness, we must stop breeding drunkards. . . . Put a drunkard upon simple, healthful, nutritious food; give him proper rest, break up his habits of indulgence by placing him in pleasant and elevating associations, see that he takes no medicine that can in any measure increase the rapidity of his heart's action, . . . and the man's appetite for liquor dies out of him. Give him a body that is healthy in all its instincts, and he will dislike stimulants as a new-born babe dislikes salted milk."

They are sick that surfeit with too much,
As they that starve with nothing; therefore it
Is no mean happiness to be seated
In the mean; superfluity comes sooner
By white hairs, but competancy lives longer.

—*Shakespeare*



DANGER

"Write it underneath your feet,
Up and down the busy street;
Write it for the great and small,
In the palace, cottage, hall,—
Where there's drink, there's danger."

Cursed be the social wants that sin against the strength
of youth;
Cursed be the social ties that warp us from the living truth.
—*Tennyson*

Stimulants and narcotics are all poisons. A stimulant is anything that excites the nerves and makes a person feel stronger, but which adds nothing to his supply of energy. It is not a food, it contains nothing that can be assimilated, and hence it can not supply the wastes of the body.

Stimulants are all deceivers. When a man is weak, they make him feel strong, and cause him to throw off more energy than would be possible under normal conditions. We are supposed to use only about one-fifth of the energy stored up in the body; then we should rest. At this point nature puts on the brakes; but by the use of stimulants we deceive nature, and she allows her reserve force to be used. Stimulants keep a man working longer, but take away his strength by drawing upon his reserve energy.

It has been tersely stated by one writer that "using stimulants is like borrowing money; the demands of both must be met, with interest, too, and frequently at a time when the borrower is unable to pay. A stimulant is a counterfeit; it pretends to 'brace up' when, in fact, it

Tea is not a food. It has no food value. It is a stimulant, a whip, to every working cell.—Rossiter

tears down. The person who indulges in the use of stimulants is like the individual who is continually placing mortgages on his property. One is as disastrous as the other; the one will terminate in physical and the other in financial bankruptcy."

ARTICLES AS STIMULANTS

Stimulants are taken in different forms. Some of the milder ones are very commonly used as drinks, such as tea, coffee, cocoa, chocolate, wine, etc. Among the most powerful are opium, cocaine, tobacco, and alcoholic drinks in all forms. "These are all spoken of as stimulants and narcotics, but they are really all narcotics, or we might say they are all stimulants. Their effects are both narcotic and stimulating."

TEA AND COFFEE

Probably tea and coffee are most universally used as drinks, but the millions that use them daily scarcely give a thought to the poisons they contain. Both will produce intoxication. Theine is the active property of tea, and caffeine of coffee, the two poisons being identical. It is for the effect of these poisons on the system that people drink them.

It has been found by experiment that twenty grains of theine is a poisonous dose. Tea contains from three to six per cent of theine. A teaspoonful of tea weighs a dram. There are sixty grains in a dram; hence there are three and five-tenths grains of theine in a teaspoonful of tea. A dram of tea, at least, is used for a cup. Two cups of tea would contain seven grains of theine, which would be enough to kill any small animal the size of a cat or rabbit. Six cups of tea would contain enough poison to make a person insensible. A smaller amount will excite the nerves, cause sleeplessness, and incite a spirit of gossip.

"The only safe course is to touch not, handle not tea, coffee, wines, tobacco, opium, and alcoholic drinks."

"Two hundred years ago one of the kings of England prohibited tea taverns, because, as he said, they threatened the peace and good order of his kingdom; people gathered there and drank tea until they became careless, and talked treason."

The continued use of tea produces nervousness, sick-headache, disordered digestion, and a sallow complexion.

One often hears it said, "I can not do without my tea or coffee; if I do, I am sick all day, and unable to work." This of itself is an evidence that there is something in the tea or coffee that has a powerful effect upon the system. If one goes without a glass of water or milk for breakfast, he sustains no serious inconvenience.

It is said that a cup of strong tea contains more poison than an equal quantity of beer, and is more harmful. Few persons would drink as many cups of strong tea as they would of beer. By this we do not recommend the beer, but condemn the tea.

Tannin, another property of tea and coffee, interferes with digestion by its action upon the gastric juice (one of the most important of the digestive fluids), hindering its secretion and rendering it almost lifeless. Tea has even been known to cause delirium tremens.

There is imported into the United States annually more than one billion pounds of tea, or five hundred thousand tons. Figuring only three per cent of poison to the pound, it would still reach the enormous figure of fifteen thousand tons, enough to exterminate the whole human race.

Tea is not food; and yet in the United States alone, it is consumed at an annual expense of over five hundred million dollars.

"Dr. Furguson, an eminent physician who has carefully investigated the influence of tea and coffee upon the health and development of children, says he found

Many who never touch alcohol ruin their health by tea.
—Hygienic Review

that the children who were allowed these beverages gained but four pounds a year between the ages of thirteen and sixteen, while those who had been allowed milk instead, gained fifteen pounds in weight during the same period."

TEA AND COFFEE CAUSE OF RHEUMATISM

Dr. J. C. Walton, in a very sensible article on the prophylaxis and treatment of uric acid conditions, published in the *Charlotte Medical Journal* for April, 1904, mentions a case of rheumatism in which, notwithstanding rigid diet and thorough-going treatment, no improvement was noticed until after the patient gave up his coffee, when the disease promptly subsided. The doctor states that he has observed a number of similar cases. This is quite in accord with Haig's theory that theine or caffeine produces the same pernicious effect in the body that uric acid does. The doctor has observed excellent results from the use of hot air and other sweating procedures, followed by a gradual cold bath.—*Australasian Good Health*

CHOCOLATE AND COCOA

Chocolate and cocoa are made from the cocoa bean, the product of the cacao or chocolate tree, a small tree from twelve to twenty feet in height, grown chiefly in tropical America. The active principle of chocolate is theobromine, which is said to be closely related, chemically, to theine.

OPIUM AND COCAINE

These are both deadly poisons, and too much can not be said against their use. Cocaine is made from the leaves of the cacao tree of South America, and is similar to theobromine, caffeine, and theine.

The Indians of Peru chew the cacao leaves habitually. Cocoa is used by eight millions of people in South America, much as tea and coffee are used in this country. The

Temperance is the parent of health, cheerfulness, and old age.—George Mogridge

cocaine habit is quickly and easily formed, and is rapidly increasing in the United States. Its effects upon the system are disastrous to health. It is a powerful drug, and will paralyze the tissues of the body wherever it is applied. It is closely related to theine in its effects and is used in medicine as a local anesthetic.

The effects caused by the use of opium are far more serious than those of any other drug, and its use is increasing to an alarming extent. Persons become addicted to the habit by taking it in medicine prescribed by physicians. It has a peculiarly soothing and fascinating effect upon the individual, who soon learns to rely upon it as a panacea for every ill. Before he is scarcely aware of the fact, the opium habit has fastened itself upon him, and it is scarcely within the power of the human will to break the habit. If deprived of the drug, he becomes almost insane, and will resort to any subterfuge to obtain it. When this stage is reached, the only way of escape is for the devotee to place himself absolutely in the hands of a competent physician until the habit is broken.

If continued, the habit will ruin the victim, physically, mentally, and morally. He becomes wholly incompetent for any business, and spends all his energies in efforts to secure more of the drug.

In America the use of cocaine trebled between the years 1888 and 1906. "The road from the beginning of the cocaine habit to quarters in an insane asylum is an extremely short one, and thousands are traveling upon it. The present indications are that this terrible evil is only fairly launched, as this drug itself was discovered but a generation ago."

Mr. F. G. Carpenter, writing of the opium evil in China, says: "The doctors say that few opium smokers are ever cured. They usually increase their allowance until

"Alcohol has a vicious effect on the various internal organs. It causes many diseases."

death. When they attempt to break off the habit, they suffer the agonies of the damned, the contrast of their condition while smoking being well expressed in the following, which was written on the walls of the opium refuge in Soochow by one of the inmates: 'While smoking opium, we are transported to paradise; while breaking the habit, we are tortured in hell.' "

Many of the patent medicines and soothing syrups upon the market contain this abomination, and to it belongs the credit for their soothing effects upon the system. Mothers who, instead of giving their babies proper attention and care, administer these compounds to them to quiet them, should become intelligent concerning the facts in the case, and know what dangers are threatening their little ones through their own injudicious management.

The effect of opium upon the Chinese nation may be seen in the enslavement of its millions to this fearful habit. Their opium dens are open everywhere, inviting the unwary, and giving them vice and wickedness in exchange for purity of manhood and womanhood.

The steps taken to force opium upon that helpless nation are almost universally regarded as one of the darkest blots upon the pages of history.

ALCOHOLIC DRINKS

Alcohol is a poison, and is one of the chief causes of degeneracy, poverty, disease, and crime; yet its devotees will defend it with the assertion that it is food, that it produces heat in the body, prevents waste, supplies nervous force, strengthens the muscles, aids digestion, and prevents disease. Science tells us it does none of these things. On the contrary, according to the best authorities, alcohol is not a food; if it were, it could be assimilated and become a part of the body, but it has never been proved that it

If you wish to keep mind clear and body healthy, abstain from all fermented liquors.—Sydney Smith

enters into the structure of the body in any way. Athletes when in training abstain from the use of alcohol in order that they may be in the best physical condition. If it is not good for them, it is not good for any one.

Professor Baron Von Liebig, a renowned German chemist, says: "We can prove with mathematical certainty that as much flour or meal as would lie on the point of a table knife is more nutritious than five measures [ten quarts] of the best Bavarian beer." Persons who drink alcohol do not drink it as a food. The plea that is made for alcohol on the ground that it is a food is a subterfuge.

The idea that alcohol produces heat in the body is a delusion. While for a few moments the circulation is increased, and there is a sense of warmth, the thermometer will show that the temperature is lowered. "I am quite satisfied," says Sir John Richardson, "that spirituous liquors, though they give a temporary stimulus, diminish the power of resisting cold."

Alcohol does not prevent waste of tissues; instead, it has been proved, scientifically, that the use of alcoholic drinks increases waste.

When alcohol is taken into the body, there is a feeling of exhilaration; the blood courses more rapidly through the veins, and the whole nervous system exerts itself to the utmost to expel the poison. Oft-repeated indulgences of this kind fatigue and wear out the nerves. They finally cease to act, and paralysis, or some other nervous disorder, is the result.

The health of the nerves and that of the muscles are so closely related that it is impossible for one to suffer without affecting the other. When the nerves are paralyzed, the muscles cease to act.

Alcohol is the essential element of all intoxicating liquors, without which they would be comparatively harm-

Every moderate drinker could abandon the cup if he would; every inebriate would if he could.—John B. Gough

less in their effects upon the body. Among well-known members of the alcohol family are whisky, gin, rum, brandy, beer, wine, cider, ale, and the numerous kinds of "bitters," which are palmed off on the public as medicines, "cure-alls" for disease.

"Alcohol," says Dr. Rossiter, "stupefies the brain cells, and deceives the man. It makes him believe that it helps him to think, but when he becomes sober, he is ashamed of his thoughts. It makes him feel strong when he is weak, rich when he is a beggar, happy when he is miserable, well when he is sick, warm when he is cold, active when he is hardly moving, good when he is bad." "Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise."

THE HOTEL BAR

A bar to heaven, a door to hell,—
Whoever named it, named it well.

A bar to manliness and wealth,
A door to want and broken health;

A bar to honor, pride, and fame,
A door to sin, and grief, and shame;

A bar to hope, a bar to prayer,
A door to darkness and despair;

A bar to honored, useful life,
A door to brawling, senseless strife;

A bar to all that's true and brave,
A door to every drunkard's grave;

A bar to joys that home imparts,
A door to tears and aching hearts;

A bar to heaven, a door to hell,—
Whoever named it, named it well.

—*Selected*

"Water is the best liquid possible to cleanse the tissues."

EFFECT OF ALCOHOL UPON THE NERVOUS SYSTEM

The brain and spinal cord of a drinking man are in a constant state of congestion. The walls of the arteries and blood-vessels become weakened, and a rupture of a blood-vessel, or apoplexy, is liable to occur at any time. The brain-cells shrivel and become hard, and their power to act is partially destroyed. After a night of drinking, the head is dizzy and sore, and the hands shaky. All the finer sensibilities of the man are blunted.

Alcohol paralyzes the nerves that control the flow of blood to the different organs, and often congestion and inflammation are the result. For this reason the drunkard's face has an unnatural flush, and the vital organs of the body become diseased.

EFFECT UPON THE BLOOD

Alcohol shrivels and weakens the corpuscles of the blood so they are unable to do their work of carrying oxygen from the lungs to destroy the waste matter, and build up the tissues of the body. As a result, the blood becomes foul, being charged with the poisons which should have been thrown off and replaced by the life-giving oxygen.

EFFECT UPON THE HEART

The heart is also affected by alcohol. The nerve centers which govern it are partially paralyzed. It is thus allowed to work harder and faster than it should, and, as a result, becomes weakened and diseased. This is the reason why heavy drinkers are so liable to heart failure.

EFFECT OF ALCOHOL UPON DIGESTION

In its ravages upon the organs of the body, alcohol does its first ruinous work upon the stomach. Its lining of mucous membrane is filled with minute blood-vessels, which

A five-pound loaf of bread contains more food than twenty-seven barrels of beer.—Rossiter

are invisible when it is in its normal condition; but in the stomach of even a moderate drinker these are conspicuous, being in a constant state of congestion.

The stomach of a hard drinker is not only in a congested condition, but the stomach becomes diseased, and little ulcers form all over the diseased surface. The stomach may be in this condition without the individual being aware of it, as the nerves are so paralyzed as to lose their normal sensibility, and he is not conscious of any ill feeling. A cancerous condition of the stomach is also caused by the continued use of alcohol.

In the case of delirium tremens the stomach becomes so diseased that mortification actually takes place, and the walls of the stomach slough away.

When food is taken into the stomach, followed by an alcoholic beverage, the stomach has first to dispose of the alcohol before the work of digestion can begin; therefore it hinders rather than aids digestion.

Alcohol, being an antiseptic, hardens the food instead of dissolving it, and in this way retards digestion. It also destroys the properties of the gastric juice so that it has but little effect upon the food.

HEALTHY BEER DRINKERS

In appearance the beer drinker may be the picture of health, but in reality he is most incapable of resisting disease. A slight injury, a severe cold, or a shock to the body or mind, will commonly provoke acute diseases, ending fatally. Compared with other inebriates who use different kinds of alcohol, he is more incurable, and more generally diseased. It is our observation that beer drinking in this country produces the very lowest kind of inebriety, closely allied to criminal insanity. The most dangerous class of ruffians in our large cities are beer drinkers. In-

Water is best.
—Pindar

tellectually, a stupor, amounting almost to paralysis, arrests the reason, changing all the higher faculties into a mere animalism, sensual, selfish, sluggish, varied only with paroxysms of anger, senseless and brutal.—*Scientific American*

THE SONG OF THE RYE

"I was made to be eaten, not to be drank,
To be threshed in a barn, not soaked in a tank;
I come as a blessing when put in a mill,
As a blight and a curse when put through a still;
Make me up into loaves, and your children are fed;
But made into drink, I will starve them instead.
In bread I'm a servant, the eater shall rule;
In drink I'm a master,—the drinker, a fool.
Then remember my warning; my strength I'll employ,—
If eaten, to strengthen; if drank, to destroy."

BEER A CAUSE OF GOUT

The drinking of beer is the greatest cause of gout among the population of London. Habitual beer drinking and excessive meat eating will undoubtedly form a duo of conditions that will take one to gout on a gallop.—*Dr. Charles Drysdale, in his address before the Public Health Section of the British Medical Association*

ANOTHER TESTIMONY AGAINST BEER

In speaking of beer, the *Pacific Medical Journal* says: "Of all intoxicating drinks, it is the most animalizing. It dulls the intellectual and moral, and feeds the sensual and beastly nature. Beyond all other drinks, it qualifies for deliberate and unprovoked crime. In this respect it is much worse than distilled liquors.

"A whisky drinker will commit murder only under the direct excitement of liquor; a beer drinker is capable of doing it in cold blood.

There is no middle way betwixt total abstinence and the excess which kills you.—Chas. Lamb

TESTIMONIES AGAINST ALCOHOL

"An advanced state of alcoholism," says Dr. Richardson, "leads to direct disorganization of all the vital structures, not one organ of the body escaping the ravage."

"The law authorizes the sale of liquor, and then has to build prisons for the victims; for nine-tenths of those who are taken to prison are those who have learned to drink."

Dr. S. S. Thorn, a physician of long experience, says: "All beer drinkers have rheumatism, more or less, and no beer drinker can recover from rheumatism as long as he drinks beer."

The governor of Canterbury Gaol, who has had acquaintance in his official capacity with twenty thousand prisoners, says he has never met with a prisoner who was a teetotaler.—*Vegetarian*

Alcohol is a poison. So is strychnine; so is arsenic; so is opium. It ranks with these agents. Health is always in some way or other injured by it; benefited by it—never. —*Sir Andrew Clark, M. D.*

Alcohol was discovered and named about six hundred years ago by a wise Arabian. He called it "Al Ghole," the Arabian word for "evil spirit," because he recognized that when people drank it, it made them act like demons. —*Rossiter*

Brandy, in its action on the nerves, is like a bill of exchange drawn on the health of the laborer, which for lack of cash to pay it, must be constantly renewed. The workman consumes his principal instead of interest, hence the inevitable bankruptcy of the body.—*Baron von Liebig*

"Physicians are responsible for making many drunkards."

If a little pure alcohol be placed on the skin and covered by a watch crystal, it will blister the skin. Alcohol produces a warm or hot feeling in the mouth and stomach. An ounce of pure alcohol in the empty stomach of a dog will cause instant death. Beer retards the digestion. Stronger drinks containing alcohol may stop it entirely. —*Rossiter*

The amount of money spent for intoxicating liquors in the United States alone in 1900 was	$1,172,493,447
Expenditure for meat	666,000,000
Tobacco, cigars, etc.	625,000,000
Bread, including flour and meal	600,000,000
Iron and steel	560,000,000
Dairy and egg products	530,000,000
Sawed lumber	495,000,000
Cotton goods	380,000,000
Boots and shoes	335,000,000
Woolen goods	250,000,000
Sugar and molasses	225,000,000
Public schools	197,281,603
Tea and coffee	100,000,000
Salaries of ministers	14,000,000
Foreign missions	5,500,000

"According to the reports of the State Board of Statistics, eighty-one per cent of the criminals of the United States, eighty per cent of the paupers, fifty-five per cent of the cases of insanity, and forty-four per cent of the idiotic and feeble-minded, are traceable to the use of intoxicating liquors. The last census reports seven hundred thousand drunkards in the United States. About one hundred thousand of them perish annually from the effects of intoxicants: multitudes of the innocent lose their lives by accident; and women and children are beggared, heartbroken, and ruined without number."

There is no temperance drink more palatable and refreshing than unfermented grape juice.

THE OLD DECANTER

There was an old decanter,
and its mouth was gaping wide;
the rosy wine had ebbed away
and left its crystal
side. And the
wind went
humming,
humming;
up and
down the
sides it
flew, and
through
the reed-
like, hol-
low neck
the wildest
notes it blew. I
placed it in the win-
dows, where the blast was blowing
free, and fancied that its pale mouth sang
queerest strains to me. "They tell me—puny conquerors!—the plague has slain its ten and war his hundred thousands of the very best of men, but I"—'twas thus the bottle spoke—"but I have conquered more than all your famous conquerors so feared and famed of yore. Then come, ye youths and maidens, come drink from out my cup the beverage that dulls the brain and burns the spirit up; that puts to shame the conquerors that slay their scores below, for this has deluged millions with the lava tide of woe. Though in the path of battle darkest waves of blood may roll, yet while I killed the body, I have damned the very soul. The cholera and the sword such ruin never wrought, as I in mirth or malice on the innocent have brought. And still I breathe upon them, and they shrink before my breath, and year by year, by thousands tread the awful road to death."

—*Literary Digest*

"Tobacco is a slow, insidious poison, and its effects are more difficult to cleanse from the system than those of liquor."

If a man drinks daily eight or ten quarts of the best Bavarian beer (equal to our lager beer), in the course of twelve months he will have taken into his system the nutritive constituents contained in a five-pound loaf of bread.—*Baron von Liebig*

A TEMPERANCE PLEDGE

"A pledge I make, no wine to take;
Nor brandy red, that turns the head;
Nor whisky hot, that makes the sot;
Nor fiery rum, that ruins the home.
Nor will I sin, by drinking gin;
Hard cider, too, will never do;
Nor lager beer, my heart to cheer;
Nor sparkling ale, my face to pale.
To quench my thirst, I'll always bring
Cold water from the well or spring;
So here I pledge perpetual hate
To all that can intoxicate."

TOBACCO

Tobacco is one of the greatest curses of modern times. It is less than three hundred years since its introduction into the civilized world, yet in that short space of time it has conquered every nationality and blighted and ruined the lives of millions of people.

Every pound of tobacco contains three hundred eighty grains of poison; chiefest among these is nicotine, one of the most deadly poisons known to chemists. It is found in tobacco in proportions varying from two to eight per cent. Scientists tell us that there is poison enough in one pound of the noxious weed to kill three hundred men if administered in a manner to receive its full effect. One-tenth of a grain is sufficient to kill an animal the size of a dog.

Its deadly effects are clearly shown in the following note published in the *Australasian Good Health*:—

"An attendant at the British Museum some years ago

Tobacco and liquor stupefy and defile the user.

saw a chemist step into a closet, raise a vial to his lips, and pitch forward dead. On examination it was found that he had taken a few drops of nicotine, and at the post-mortem the brain was found congested and the blood dark and fluid."

"Appleton's Cyclopedia" describes nicotine thus:—

"Nicotine possesses an exceedingly acrid, burning taste, even when largely diluted. . . . It is one of the most virulent poisons known, a drop of the concentrated solution being sufficient to kill a dog, and its vapor destroying birds. Its vapor is exceedingly powerful, that arising from a single drop being sufficient to render the whole atmosphere insupportable."

In his work on tobacco, Dr. Elisha Harris says: "A single leaf of tobacco or a single cigar contains enough of this poison to destroy the life of the strongest man if it were introduced into the stomach or applied directly to the nerves and blood-vessels of the body. . . . A few drops of the fresh juice of tobacco when applied to a wound or introduced into the stomach induces a fearful prostration of all the powers of life, if not death itself."

Tobacco using and liquor drinking go hand in hand; at least it is a rare thing to find a man who drinks liquor yet does not use tobacco. "Show me a drunkard," says Horace Greeley, "who does not use tobacco, and I will show you a white blackbird."

It is the unanimous testimony of those who have given this question careful study, that tobacco does more injury in the world than alcohol, because it is more universally used.

This subject is set forth most convincingly by Mary Foote Henderson, in the "Aristocracy of Health." She says:—

"Which of these despotic rulers, these all-powerful

Tobacco is always and everywhere a merciless destroyer.
—Rossiter

potentates, these conquerors of the earth—tobacco, alcohol, and opium—is most pernicious?

"In many respects they are alike. They are alike in having been first used as medicines only. The feeling of exaltation produced by them, and so much enjoyed, springs from the same source—the activity of the bodily functions to rid the organism of poison. The soothing effects of each also result from the same cause—partial paralysis due to poisons too strong to bear. The after effects are also practically the same—general devitalization and special disease according to individual tendencies.

"When studying the records of the three poisons and hoping to find virtues for what so charms the world, the clouds about them become darker and heavier, and it is difficult to believe that the drug last investigated is not the chief arch enemy of mankind,—so fascinating, so despotic, so deadly, so universally used is each. . . .

"Undoubtedly tobacco should take the lead as the greatest of human destroyers, for its influence is the most deceptive. It is less brutal, less violent, less noisy, less stupefying, less maudlin, less besotted, and less offensive than alcohol. It does not madden nor murder. . . . Compared with opium, tobacco is less annihilating and less torturing. It does not stretch its victim on the rack. . . . The train of victims does not drag along with such hollow eyes, such livid skins, such shackling gait.

"Tobacco gives no such alarms. . . . Its effect is soothing. It apparently helps to think, to act, and to live. It is social and genial. It is convenient; it can be carried in a corner of the pocket, ever ready. It will not break nor spill nor protrude like a bottle of whisky.

"A man knows when he is drunk with alcohol or opium, but he does not know his nicotine until the accumulated effects have made themselves permanent; until he finds that

Smoking injures the throat, weakens the vocal cords, and frequently causes cancer of the lip and throat.—Rossiter

his once rich blood corpuscles, that mark the line of vigor in the thermometer of life, have become diluted, misshapen, and devitalized; until he finds his throat glands have lost their sense of taste; until he finds that his heart, exhausted by abnormal work, is fitful and irregular; until he finds his digestive functions, weary of imposition, morose and inactive; until he finds the divine repose of refreshing sleep exchanged for the uninvigorating sleep of disease; until he finds that the continued excitements and becalmings of his nervous system have rendered it chronically fatigued; until, in fact, he finds that tobacco, like opium, has soothed and caressed him while it has spent his energies and sapped and undermined the entire fabric of his being. Tobacco has also created a thirst for alcohol. . . . It has appealed to all,—the rich, the poor, the old, and the young. It has counted its victims by hundreds, where alcohol has counted them by tens. It has become the chief source of the degeneracy of the races. In its culture it has even cursed the ground it has fed upon. . . . What drug of infernal concoction can match it?"

TOBACCO SMOKING

The medical journals of the present time give pointed, scientific testimony relative to the evils resulting from the pernicious habit of smoking tobacco. It is not only poisonous to the system of the person who smokes the weed, but also disastrous in its effects upon the other members of the family who are constantly obliged to inhale the fumes of the poison. The heart of the smoker is partially paralyzed, as is plainly indicated by the sphygmographic tracing of the pulse. Its vigor and force are diminished, and it does its work but feebly.

It is also well known that tobacco smoking is a cause of that dread disease, cancer of the mouth. The smoking

"Thousands of boys are killed every year by cigarettes."

of cigars is especially dangerous in this respect, as the tobacco comes in direct contact with the tongue and mucous lining of the mouth.

The irritation of the mouth and throat, caused by direct contact with the hot fumes of the poison, is the cause of serious trouble with the throat and bronchials. "This cause of chronic disease of the throat is so very common, that 'smoker's sore throat' has come to be recognized as a distinct malady. Some smokers pretend to smoke for the cure of throat difficulties; but the excuse is a mere pretense in most cases. Tobacco never cures sore throat."

THE CIGARETTE

A poisoned thing, adroit to please,
It winds its deadly way in haste,
And leaves behind a barren waste
Of shattered hopes, and crime, disease.

A curse, that steals the will, the brain;
That robs all honor, love, and life,
And gives instead a world of strife
And suffering, hell, and all its pain.

It binds all sense of right and wrong;
Its hellish craving fires each nerve;
Till we, poor fools! from God's way swerve,
To join the lost, the stumbling throng.

What lust-dimmed eyes and labored breaths,
What shoulders stooped, what nerveless hands,
Are fostered at the stern commands
Of vicious, deadly cigarettes!

Of all the evils known to truth,
There's none that leaves a deeper trace,
Nor is more hard to hide, deface,
Than that which taints our lives in youth.

"Temperance and proper diet,
Keep the mind and body quiet."

So, boys, whate'er you do, please shun
The deadly cigarette's first taste,
For all that follows in sure haste,
In this doth lie the harm that's done.

—*The Boy*

The modern and pernicious habit of cigarette smoking is doing more to ruin the health and intellect of our boys and young men than any other habit. Although the tobacco used in making them is mostly of the milder sort, the method of inhaling the smoke directly into the lungs makes it much more injurious. If spread out, the breathing surface of the lungs would cover about two thousand square feet. This membrane is filled with minute air-cells, the total number of which is estimated to be not less than one billion seven hundred million. Physiologists tell us that "covering the entire surface of the mucous membrane and lining the air-cells of the lungs, is a layer of cells which are capable of capturing and destroying the germs of various sorts which are taken in with the breath." The multitudes of germs which float in the air and are taken into the lungs as we breathe are a direct cause of disease. When tobacco smoke is inhaled, it directly paralyzes this protective tissue of the lungs, and lessens its ability to defend itself against the deadly germs which are a menace to life and health.

INCREASE OF CIGARETTE SMOKING

Statistics furnished by G. Edmund Hatcher, special correspondent of the *Nashville* (Tennessee) *American*, show that "ten years after the smoke of the first cigarette was blown from the lips of the pioneer of American cigarette smokers, the annual consumption amounted to one million. That was about the year 1874. . . . It reached the billion mark in 1884. Five years later, or in 1889, government

What maintains one vice would bring up two children.
—Benjamin Franklin

statistics showed the consumption to be two billion annually, and in 1893 it was three billion.

"In 1896, the last year in which statistics along this line are obtained, the number of cigarettes of all kinds, foreign and home-made, said to have been sold in this country, approximated the enormous total of four billion.

"Stop just a moment and think of the significance of these figures. Placed end to end, these four billion cigarettes would almost encircle the earth. Laid side by side two inches deep, they would cover a ten-acre field. . . . Most serious thought of all, if the money thus annually expended were turned into useful channels, it would put a pair of shoes on every child in the country, and purchase the necessaries of life for one hundred thousand families."

ITEMS OF INTEREST ON TOBACCO

Professor Goodwin, principal of a high school of New York, says:—

"As to cigarette smoking among boys, there is just this much to say: The boy who smokes, whether it be the cigarette or any other form, between the ages of fourteen and eighteen, may bid adieu to all hopes of scholarship. He can do next to nothing in the high-school grades."

In an article on this subject by Dr. Roberts Bartholomew, we find that "the prodigious increase of cigarette smoking among boys in the last few years is an evil which will tend to the deterioration of the race if it is not checked. It is not hard to account for. Boys are very imitative. They follow the fashion with promptness and zeal. It is the correct thing to smoke these poisonous little rolls at Harvard, and what is fashionable in a great school like Harvard is sure in a very short time to be fashionable among young men and boys all over the country. There ought to be a sentiment created against it."

"Tobacco is a narcotic, benumbing, stupefying, and depressing."

The following facts are given by Meta Lander, in "The Tobacco Problem":—

"A child picked up a quid that had been thrown on the floor, and, in taking it for a raisin, put it into her mouth, dying of the poison that same day.

"Not a few physicians regard much of the invalidism, and also the positive ill health of women, as due to the poisoned atmosphere created around them by the smoking members of their household.

"Medical journals report the poisoning of babes from sharing the bed of a tobacco-using father, and even from being in the room where he smoked; and infants' deaths have occurred from no other cause. Says Dr. Thrall: 'Many an infant has been killed outright in its cradle by the tobacco smoke with which a thoughtless father filled an unventilated room.'

"A French journal reports the case of a farmer who, with two companions, smoked one evening in a chamber where a young man was asleep. When, at midnight, the visitors withdrew, the farmer found the youth insensible. A doctor was summoned, but all efforts for his restoration were fruitless. At the post-mortem it was pronounced that he had died of congestion of the brain, caused by the respiration of tobacco smoke during sleep.

"At Dartmouth Park, England, an old wooden pipe was given to a three-year-old to blow soap bubbles with, the pipe being first carefully washed out. The boy was taken ill, and died in three days, his death, according to medical evidence, being caused by the nicotine which he had sucked in while blowing bubbles.

"The daughter of a tobacco merchant, from simply sleeping in a chamber where a large quantity of the weed had been rasped, died soon after in convulsions.

"W. E. A. Axon asserts, in the *Popular Science Monthly*,

Tobacco is a culture productive of infinite wretchedness.
—Thomas Jefferson

that the nicotine in one cigar, if extracted, and administered in a pure state, would suffice to kill two men.''

TOTAL EFFECTS

''Death from tobacco smoking is getting to be a common thing. Very few tobacco users realize with what a terrible evil they are playing. A workman in the United States began smoking when a boy, and when he entered the twenties the habit took such a hold upon him that he smoked as many as fifty cigarettes a day. He called them 'coffin nails' in jest. His employer often warned him that he was killing himself, but he would only laugh. At the age of thirty-nine he dropped dead, leaving a widow and six children. Here, many would think, the tragedy ends, but those who know the nature of tobacco and its far-reaching effects will know that the six children must suffer heavily in mind and body for the indulgence of their father. The vice which killed him prematurely will have deprived his children also of their rightful heritage of health and strength.

''The cause of death was certified as 'cigarette smoking to an abnormal degree,' but, as the *Christian Advocate* sensibly points out, the use of so dangerous and seductive a drug is in a sense abnormal in every form and degree. 'Though it affects the health of many persons but little if practised in moderation, yet some are much injured by what others could bear. For boys it is abnormal in any degree, and if they begin, the probability is that the habit will enslave them.' ''

The firm of the J. C. Ayer Company, manufacturing chemists of Lowell, Massachusetts, employing hundreds of boys and young men, posted the following notice in their works, March 1, 1902:—

''Believing that the smoking of cigarettes is injurious

"Nicotine is one of the most violent poisons known."

to both mind and body, thereby unfitting young men for their work; therefore, after this date we will not employ any young man under twenty-one years of age who smokes cigarettes."

"Cigarette smokers are unsafe. I would just as soon get railroad men out of the insane asylum as to employ cigarette smokers."—*Chairman Harriman, of the Board of Directors, Union Pacific and Southern Pacific Railroads*

THE CIGARETTE AS A MATHEMATICIAN

"I am not much of a mathematician," said a cigarette; "but I can add to a man's nervous troubles, I can subtract from his physical energy, I can multiply his aches and pains, and I can divide his mental forces; I can take interest from his work, and discount his chances of success."

Little drops of water
 Are better far, I know,
Than little drops of whisky,
 That only bring us woe.
Who hath wounds and babbling?
 Bleared and watery eyes?
'Tis they who tarry at the cup,
 Who are not brave nor wise.

—*L. D. A. S.*



COLD WATER

There is no drink more refreshing when one is thirsty than pure, cold water. Many drinks have been concocted from many things, but, after one has gone the rounds and tried them all, there is nothing equal to pure water to slake the thirst and purify the tissues of the body. In fact, it is only the water in any drink that quenches thirst. In "Essay on Health and Long Life," Dr. Cheyne says: "Water was the primitive, original drink, and happy had it been for the race of mankind if other mixed and artificial liquors had never been invented. Water alone is sufficient and effectual for all the purposes of human wants in drink."

Charles Lamb speaks of it thus: "O, if a wish could transport me back to those days of youth, when a draught from the next clear spring would slake any heats which summer suns and youthful exercise had power to stir up in the blood, how gladly would I return to thee, pure element, the drink of children!"

OATMEAL BEVERAGE

A very refreshing and nutritious drink can be made from oatmeal. Boil a cupful of oatmeal in three quarts of water for half an hour. Add a bit of salt and two tablespoonfuls of sugar; strain and cool. Flavor with fruit juice of some kind; lemon, orange, raspberry, or blackberry are good for this purpose. If this seems a little thick for a drink, reduce with pure water.

Instead of adding the fruit juice and sugar, some prefer

Grape juice, diluted as much as desired with pure water, is at once palatable, refreshing, and sustaining.—Dr. Olsen

to add a quart or two of milk, which makes a more nourishing drink. Serve cold.

"Some years since a great railroad corporation in the West, having occasion to change the gage of its road throughout a distance of some five hundred miles, employed a force of three thousand workmen upon the job, who worked from very early in the morning until late at night. Alcoholic drinks were strictly prohibited, but a thin gruel made of oatmeal and water was kept on hand and freely partaken of by the men to quench their thirst. The results were admirable; not a single workman gave out under the severe strain, and not one lost a day from sickness. Thus this large body of men was kept well and in perfect health and spirits, and the work was done in considerably less time than counted on for its completion."

GRAPE JUICE

The editor of *London Good Health* says: "We are often asked to recommend a good temperance drink, and always give the same answer, Grape juice, diluted as much as is desired with pure water. This beverage is at once palatable, refreshing, and sustaining. It is a real tonic, containing in solution natural salts and acids which are of great value in increasing the activity of various organs, and improving the tone of the system as a whole."

LEMONADE

Lemonade is a favorite drink in all parts of the world, and if well made it is very refreshing. For each quart of lemonade use three or four medium-sized lemons. Squeeze or roll the lemons till soft, so the juice may be easily extracted. Wash the lemons and rub the sugar over the outside to flavor it, then cut in half and extract the juice with a lemon drill. Strain through a fine strainer

Water alone is sufficient and effectual for all the purposes of human wants in drink.—Dr. Cheyne

to remove the seeds, and pour the juice over the sugar. Use about two tablespoonfuls of sugar for each lemon. Allow this syrup to stand for fifteen or twenty minutes, then add the amount of water required.

MIXED FRUIT DRINK

A delicious drink may be made by combining the juices of lemons, oranges, and pineapples. The fruit varies so much in size that it is a little difficult to tell the exact amount of fruit to use; one must use his own judgment; the juice from four medium-sized lemons, four oranges, and a small pineapple, with sugar to taste, in two quarts of water, is about the right proportion.

FRUIT BEVERAGES

A variety of delicious and refreshing drinks may be made by mixing equal quantities of different fruit juices, such as currants, raspberries, blackberries, cherries, grapes, and water, sweetening to taste. One may vary these by combining different fruits, uniting those that are sweet and tart.

ICED DRINKS

Iced drinks of any kind, especially if taken at mealtime, are detrimental. The intense cold chills the contents of the stomach, and stops, or at least retards, digestion. The process of digestion can not be carried on when the contents of the stomach is at a lower temperature than that of the body. A glass of iced drink taken at the close of a meal may sometimes hinder digestion from half an hour to an hour.

HOT DRINKS

If liquids are taken into the stomach too hot, they have a relaxing and weakening effect. If any drink is required, it should be at a moderate temperature.

It is the water only in any drink that quenches thirst.

The best time for a hot drink is about an hour before meal-time. There is time then for the liquid to be absorbed, and it leaves the stomach in a proper condition to begin the work of digestion.

BOIL THE ICE

"We have boiled the hydrant water; we have sterilized the milk;
We have strained the prowling microbes through the finest kind of silk;
We have bought and we have borrowed every patent health device;
And at last the doctors tell us that we have to boil the ice."

THE LIFE-GIVING CUP

Let others sing of the ruby bright
In the red wine's sparkling glow;
But dear to me is the diamond light
In the fountain's purer flow!
The feet of earthly men have trod
The juice from the bleeding vine,
But the stream comes pure from the hand of God,
To fill this cup of mine.

The lark springs up with a lighter strain,
When the wave has washed her wing;
The steed flings backward his flowing mane,
When he leaves the crystal spring.
This was the cup of paradise
Ere blight on its beauty fell;
And the buried streams of its gladness rise
In every sparkling well.

—*Bethune*

SECTION FOUR

Care of the Body

God of the Open Air

"Thou who hast made Thy dwelling fair
With flowers beneath, above with starry lights,
And set Thine altars everywhere—
On mountain heights,
In woodlands dim with many a dream,
In valleys bright with springs,
And on the curving capes of every stream;
Thou who hast taken to Thyself the wings of morning,
To abide
Upon the secret places of the sea, and on far islands,
Where the tide
Visits the beauty of untrodden shores,
Waiting for worshipers to come to Thee in Thy great
Out-of-doors!
To Thee I turn, to Thee I make my prayer, God of the
Open Air"



COME IN

Come in, gentle breeze; round my window you're playing,
Making the maple leaves dance with delight;
You whisper of juicy blackberries and haying,
Dear pleasure of summer debarred from my sight.

Come in, gentle breeze, with your sweet, cooling kisses,
Come bring to my bedside the scent of the trees;
Come quench from my veins the hot fever that hisses,
And lull me to sleep with the song of the bees.

—*W. H. Johnson*

OUR FIRST NECESSITY

"From the quick gasp of infancy to the last feeble sigh of old age, the prime necessity of life is air. Air is food for the lungs, as bread is food for the stomach. Millions more people die from want of lung food than from a deficiency of other aliment. The Creator has provided the necessary article in generous abundance, fresh, pure, and free to all. If we do not get enough, it is our own fault; for when we close our doors and windows most securely, this vitalizing, invigorating element is whizzing and howling close around outside, seeking to find an entrance.

"People who nail up their windows, stop every crack and crevice in the walls, line the door-casing with felt, and fix a patent thing under the door as a sort of air-trap to catch the occasional whiffs of pure air which might otherwise get in, are barricading themselves against their best friend. A man who so studiously and deliberately deprived himself of the means of procuring ordinary food would be pronounced a suicide. Is he any less a transgressor—though

"Many try to see how little air they can breathe, air being their chief, and possibly only, economy."

ignorantly so—who deprives himself and his family of a still greater necessity—pure air?

"The demand for pure air is the most imperative of all the wants of the system. An individual will die sooner for lack of air than from deprivation of any other of the essentials of life. A person may live several weeks without solid food of any kind, several such cases having been noted by eminent authorities. When deprived entirely of drink, life sooner becomes extinct. But if an individual be deprived of air, death occurs in a few minutes."

"The first, the greatest, and the everlasting need of a physical existence is air, and it must necessarily contain a certain amount of oxygen in order that life may be sustained. Every one should have two thousand cubic feet of fresh air every hour. Air that is breathed twice contains enough carbonic acid gas to extinguish a light. One burning gas jet consumes as much oxygen as sixteen persons do."

"Air, air, the precious boon of heaven, which all may have, will bless you with its invigorating influence if you will not refuse it entrance. Welcome it, cultivate a love for it, and it will prove a precious soother of the nerves. . . . The influence of pure, fresh air causes the blood to circulate healthfully through the system. It refreshes the body, and tends to render it strong and healthy, while at the same time its influence is decidedly felt upon the mind, imparting a degree of composure and serenity. It excites the appetite, renders the digestion of food more perfect, and induces sound, sweet sleep."

"Not only is the air free, but you are compelled to breathe it. You may choose whether the air be good or bad, but you can not choose whether or not to breathe. Nature has put within you a desire for pure, fresh air. She has put within you a dislike for foul air, bad odors, and poisonous gases."

Impure air makes impure blood, and impure blood poisons the brain and paralyzes the nerves.

IMPORTANCE OF VENTILATION

The persistent efforts made in some homes to exclude the fresh, pure air, is a fruitful cause of physical weakness and disease. Every breath of pure air we breathe carries impurities from the blood. With every heart beat, the blood is sent out through the arteries to all parts of the body, where it gathers up effete, poisonous matter, and passes back through the veins to the heart; then the heart pumps this impure blood to the lungs, where it is purified and vitalized by the oxygen in the air we breathe. If this air is already loaded with poisons, its vitalizing, purifying work is reduced, and the blood must carry back these poisons and throw them upon other delicate organs, thus overburdening and weakening them; in this manner the body is loaded with impurities until nature finds relief by burning up the impurities with fever, or expelling them as scrofulous humors, sores, and other serious afflictions.

DAILY VENTILATION

It is not enough to open the doors and windows and give the house a thorough airing once a week. Some housekeepers have a definite day for such an airing, and console themselves with the belief that that one fresh, sweet draught, together with what air can get through the keyhole, is enough to last the family a week. Every room in the house should have a thorough airing daily. When the weather will permit, the doors and windows should be thrown wide open for an hour in the morning, and the more they can be kept open during the day, the better.

HOW MUCH AIR REQUIRED

If no adequate provision has been made for constant ventilation, the windows should be adjusted to serve that

Special care is necessary to ventilate a room where kerosene lamps, gas jets, or oil stoves are used.

purpose as best they may, by lowering from the top and raising from the bottom.

The ventilation required depends upon the size of the rooms, the number of persons living in the house, and whether lamps, gas jets, or oil stoves are used. Every person and every blaze consumes oxygen and throws off carbonic acid gas, one of the most dangerous of poisons; and the ventilation should be sufficient to keep an abundant supply for all consumers. As the oxygen is consumed, the lamps burn dimly; so also with the lamp of life. To burn brightly, it must have a constant supply of pure, fresh air, and the poisoned air must be expelled.

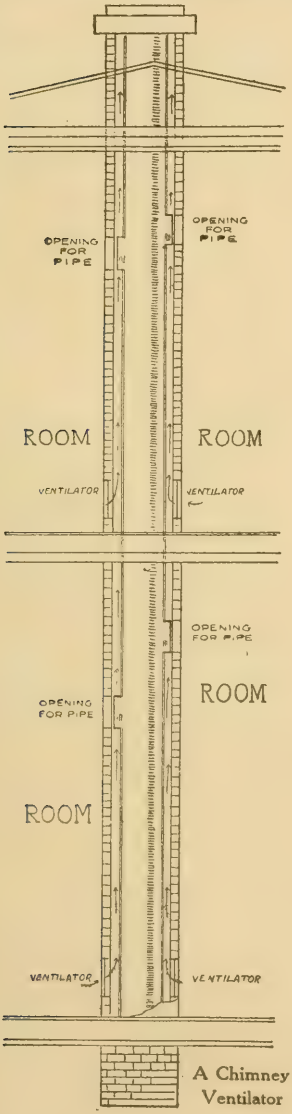
HOW TO VENTILATE

1. Although many ingenious devices have been invented for ventilating a house, in the majority of cases we must depend upon the doors and windows. These should be adjusted so as to secure a free circulation of air across each room. A little study of the plan for the house, with this thought in mind, not forgetting to take into consideration the prevailing winds, will usually enable one when building to so arrange the doors and windows as to secure good ventilation for every room.

2. One of the best ventilators is an open fireplace, as it takes away the impurities from the lower part of the room, where they finally settle. It is a source of satisfaction that these fireplaces are again becoming so popular that a modern home is hardly considered artistic without one or more of them. This excellent ventilator, however, is of little use except when the chimney is heated.

3. Here is a practical ventilator which is not very expensive. Build the chimney large and in the body of the house, where it will present a portion of its surface to as many rooms as possible. Build a smoke-stack of heavy

Frequent headaches, mental confusion, weakness, and exhaustion, often result from poor ventilation.



A Chimney Ventilator

gage sheet-iron for the center of the chimney, with an opening at each stovepipe hole. Then make a ventilator in the chimney, near the floor of each room. The smoke-stack will be heated by the stoves, and the heat will create a strong draught in the chimney, outside the smoke-stack, thus furnishing a splendid shaft as a ventilator for each room.

4. Where houses are heated by a furnace, the best apparatus should be used for heating fresh, pure air from the outside and distributing it through the house. Ventilators in connection with the chimney or elsewhere should be provided for carrying off the impure air.

5. Where only a simple heating stove is used, a jacket or shield can be provided for the heater, and fresh air brought by means of a pipe from the outside and heated by coming in contact with the stove inside the jacket.

CLOSE SLEEPING-ROOMS

Close sleeping-rooms are particularly injurious to health.

Air must be in constant circulation to be kept pure.

Vitality is lowest during sleeping hours, and at that time poisons are most readily taken into the system. It is not uncommon to find sleeping-rooms with both sashes of the windows fixed solidly with nails, every crevice stopped, and the windows heavily hung with curtains. It is positively dangerous to sleep in such a room. On reentering such a room in the morning, one is met with a sickening odor, which is caused by the air being loaded with impurities exhaled during the night.

FEAR OF COLDS

Many people shut out the air for fear of taking cold, when really the evil practice of working and sleeping in poorly ventilated rooms is one of the chief causes of colds, sore throat, and general lassitude and depression. Overheated and ill-ventilated living and sleeping-rooms are undoubtedly responsible for much of the loss of vitality and physical energy which invites throat and lung diseases. "Baked air" is not to be recommended as are baked beans. It is the cause of many colds. Better to gradually inure ourselves against cold, and through proper ventilation strengthen our resisting powers. Pure, fresh air at zero is preferable to impure, stale air at ever so comfortable a temperature. People who live in poorly ventilated houses can not be healthy and strong.

DAMP ROOMS

Some people labor under the misconception that by closing their windows and doors, and shutting out the fresh air, they are protecting their homes from cold and dampness. On the contrary, it is very difficult to warm impure air; even in cold weather when a large public room is to be warmed, time and fuel will be saved by allowing the room to fill with pure, fresh air before the fires are

A man may live forty days without food, five days without water, but less than five minutes without air.

made. If the air is kept pure in a house, it can be kept comfortably warm with less fuel than if the air is impure. It is also a well-known fact that a room is comfortable at a considerably lower temperature if the air is fresh than if the room is close and poorly ventilated. A house that is not properly ventilated is almost sure to be a damp house; moisture has no means of escape; consequently it gathers upon the walls, and the rooms become gloomy, damp, and cold.

"Come, tonic blasts—
Arouse my courage, stir my thought;
Give nerve and spring, that as I ought
I give my strength to what is wrought,
While duty lasts."

OVERHEATED ROOMS

The necessary ventilation is often cut off by the unwise habit of keeping rooms too warm. It is a habit easily formed, and it is most common in the United States. It is not unusual for some houses to be kept at a temperature of from eighty-five to ninety degrees in cold weather. Such a temperature is exceedingly depressing, and one is frequently subject to dangerous exposures from the sudden changes from a hot room to the outside, or to cold halls or rooms.

SEVERE DRAUGHTS

Avoid a draught when very warm. It may be comfortable, but that comfort will be short-lived. It should be understood that a breeze, or moving air, is not necessarily a draught. This precaution is given as a warning against a too sudden checking of perspiration. "Cool off gradually" is a very common saying. It would be better to say, "Cool not at all, but get less warm." The cooling point is the danger point.

Sleeping-rooms should always receive air from the outside, and not through transoms opening into a hall.

"Close bedrooms make the graves of thousands," a physician is quoted as saying. On the other hand, bedrooms that are too airy in cold weather make graves, also. A blast of cold, outdoor air on a sleeping person who has a throat or bronchial weakness is more dangerous than a certain degree of closeness. In this, as in other questions of health, the individual circumstances must be considered.

At a recent convention, held in midwinter, a large congregation had been sitting for more than two hours in an overheated and rather poorly ventilated room. During an intermission of fifteen minutes, the doors and windows were thrown wide open, and the cold wind swept through the church, bringing in pure air, to be sure, but making a sudden change. At the close of the intermission, an eminent physician came forward and explained the dangers attendant upon such a sudden change. He said that "fatal illness might be caused by an exposure like that for five minutes; whereas a man might live, though at a disadvantage, for fifty years in impure air."

More attention should be given to the ventilation of assembly halls so as to give a good supply of fresh air and at the same time avoid dangerous draughts.

A SUGGESTION TO OFFICE WORKERS

Good ventilation is of great importance in offices and in all other rooms where heavy mental work is being done; for if the air becomes overheated and impure, these poisons weaken and exhaust the brain and nerves, thus making the strain much heavier than it would otherwise have been.

"It is the inhalation of impure air that causes many a sick-headache which might have been avoided by a circulation of fresh air."

Shut the door to pure air, and you will soon open it to the doctor.



THE ROBIN'S LECTURE

I heard a bird lecture one morning this spring,
And 'twas this that he said almost the first thing:
"I've been off for awhile where the winters are warm,
But now have come back and am preaching reform.

"I've heard other lecturers say I would find
It a very hard thing to enlighten the mind,
But, nevertheless, my success I shall try
All over the country, wherever I fly."



And his musical voice through the old orchard rang,
For the lecture I speak of, a sweet robin sang.
"O, do not feel hurt," this he said in his song,
"But I very much fear you have been brought up wrong.

"Do open your windows and let in the air,—
I know you'll feel better and look far more fair;
Now, just look at me, why, I never take cold,
And in excellent health I expect to grow old."



Then he stepped back and forth on the limb of the tree,
But I know all the while he was looking to see
If what he had said my attention had caught,
And made the impression upon me it ought.

And then he went on: "I have known in my day
A great many birds all reared the same way;

Water, air, and sunshine, the three greatest physical needs, are free, and within the reach of all.

Their cradles were rocked to and fro by the breeze,
And the roofs of their houses were
leaves of the trees.



"But I never have known a bird-
ling to droop,
Nor, old as I am, seen a case of
the croup,
Nor heard a bird say that so sore
was his throat
That he, for his life, could not raise the eighth note.

"And one with dyspepsia, too gloomy to sing,
That he should consider a terrible thing;
Consumption has never unmated a pair—"
Here the bird commenced warbling an ode to fresh air.

"Our habits are good, and our natures are quiet,



We hold but one error, and that's
in our diet;
We love grain and fruit, but now
and then eat
(I might as well own it) a tidbit
of meat.

"We lave in the brook, and we drink nothing strong
(If I'd time, I would sing you
a 'cold water song');
And when earth's great lamp has
gone out in the west,
You'll find our lays hushed, and
our bodies at rest.





"We birds are so happy; but I must
not stay,
For sev'ral appointments await me
to-day."
Then he stepped back and forth on
the limb of the tree,
And flew out of sight, wishing long
life to me.

—*Selected*



A PRESCRIPTION

"My pallid friend, is your pulse beating low?
Does the red wine of life too sluggishly flow?
Set it spinning through every tingling vein
By outdoor work, till you feel once again
Like giving a cheery schoolboy shout;
Get out!

"Are you morbid, and, like the owl in the tree,
Do you gloomily hoot at what you can't see?
Perhaps now, instead of being so wise,
You are only looking through jaundiced eyes;
Perhaps you are bilious, or getting too stout;
Get out!

"Out in an air where fresh breezes blow
Away all the cobwebs that sometimes grow
In the brains of those who turn from the light
To all gloomy thoughts instead of the bright.
Contend with such foes and put them to rout;
Get out!"

Activity is a manifestation of life; and a more abundant life is the reward of activity. Stagnation is the immediate forerunner of death. When a tree ceases to grow, it dies; still water soon becomes stagnant; running water is purest, for its activity affords a means for purification. The Dead Sea is a stagnant sink, and is called the Sea of Death, for it has no outlet, and therefore no activity. Fish can not live in its waters, for it has become a reservoir of poisons, which have been accumulating and multiplying for centuries.

This law of life holds good in the operation of every

"By the exercise of the muscles new life is given to every part of the body."

organ of the body. Muscles little used, become weak; teeth not used, soon decay; eyes little used, lose their power; and so with all the other organs of the body. They fulfil their respective functions with a strength in direct proportion to their proper exercise.



Activity the Law of Life

The chief reason for weakness and disease is that through inactivity the blood becomes sluggish, and fails to fulfil its functions, which are, chiefly, to carry off the waste, effete matter from the organs and muscles and bones of the body, and then rebuild with new and better strength that which is broken down. It is impossible for the blood to do this work unless the lungs are supplied with fresh, pure air, and the body with good food; then the habits of life must be such that the blood will be sent vigorously upon its life-giving mission to every extremity of the body.

The value of regular, intelligent exercise can not be overestimated. It is the law of life in every living thing.

The morning is the best time and the open air the best place for exercise.

THE BEST TIME FOR EXERCISE

For busy people, the best time for exercise is when there is opportunity for it. Exercise is good at all times of day, with the one exception, that violent exercise should not be taken immediately after meals; and, in fact, violent exercise can hardly be recommended at any time of day. If busy people get the foolish idea that exercise should be taken only at a certain time in the day, that time is likely to be occupied, frequently, in some other way, and the exercise is practically dropped out, as in the case of the lazy philosopher who reasoned that it was not good for the health to take exercise between meals.

The natural tendency of most people, and particularly brain-workers, is to be lazy on the point of exercise. The Chinese philosopher was quite right in his reply when asked in what respect all nationalities are alike; he said, "They all like lazy." As poisons accumulate in the body, the lazy feeling increases.

Daily exercise should be persisted in. It may require much physical courage and determination to throw off the dull, unexplainable desire to keep quiet; but this must be done, and exercise taken every day if one would keep strong and well. A vigorous morning walk; a half hour's work in the garden; a good walk to the office instead of riding on a street-car; light gymnastics for a few minutes in the office during the busy part of the day; vigorous washing of the face and hands when tired from overwork; an out-of-door game with the children on returning home at night; deep-breathing exercises whenever possible all through the day,—these are among the many ways of taking the needed exercise without losing much time. We should make it a rule to exercise enough, at least, every day, to start a free perspiration.

"Judicious exercise will induce the blood to the surface, and thus relieve the internal organs."

THE BEST KIND OF EXERCISE

Fortunately the most beneficial exercise is useful, interesting labor. What we say upon this point will apply chiefly to brain-workers and people of sedentary habits. The hard toilers at physical labor, both men and women, get exercise enough, and with such the question of rest is of primary importance. Exercise, taken simply for its own sake, is doubtless beneficial, but useful labor and joyful sport are the best for both mind and body.

GARDENING, WOOD-CUTTING, ETC.

There is no better exercise for men and women, and boys and girls, than general housekeeping, gardening, wood-sawing and chopping, caring for domestic animals, and doing other plain, interesting work about the home. It has been said that no one knows how sweet to the taste potatoes and turnips are until he has raised some with his own hands. A man who is confined much in an office should, when possible, keep a garden, and work in it one or two hours every day. Sawing wood is an excellent exercise for all the muscles of the body. It is said of N. P. Willis, the celebrated poet, that, during his last days, when suffering from a fatal malady, he lengthened his life many months by purchasing a horse and caring for it. Feeble or aged persons, who are unable to do heavy work, may be greatly benefited by such pleasant, easy tasks.



A Daily Sweat

If it was necessary to walk to a remote spot, he walked, but he had never known himself to exercise.—H. James

This out-of-door exercise is as beneficial for women and children as for men. Housekeepers should spend at least an hour every day working in the sunshine, caring for flowers or vegetables, or doing other light work in the open air. There is no better exercise for children than cutting wood, raking the grounds, washing dishes, and doing a hundred other things which are useful as well as beneficial to the health, and much better than idleness.



Buck-Saw Exercise

WALKING

There is no exercise that can take the place of walking. It is said of Gladstone that he walked four miles every day. If the body is held in the right position, the respiration deep and strong, and the movements tense and vigorous, great good may be obtained from this exercise. Very little benefit is obtained from a lazy walk.



A Good Constitutional

"A variety of exercise will call into use all the muscles of the body."

Carry the head well poised, chin drawn in—for dignity. Think of a spot on the top of the head, about four inches back of the forehead,—pull the hair a bit, if necessary, to locate the spot in your mind. Hold your head and body so as to lift that spot as high as possible. If you forget your shoulders and arms, chest, neck, and chin, and think only of the elevation of this one spot on the top of your head, every member of your body will naturally fall into an easy and correct position.



For Strength and Vigor

RESPIRATION WHEN WALKING

Make this walk an occasion for expanding the lungs, and feeding the blood from the fresh, pure air of heaven. Deep breathing is a very beneficial exercise. When you are walking, breathe as deeply as you can; stop occasionally and make a business of it. No matter how busy one may be, deep breathing may be practised at times all through the day; it will quicken the circulation, increase the vitality, warm the body, and prevent colds.

ROWING

Naturally, any form of enjoyable exercise which takes one out-of-doors, into the pure air and sunshine, and amid the beauties of nature, is beneficial to the health. In addition to the physical benefits to be derived from such exercise, there is also a degree of rest for the mind, and a

An hour of exercise to every pound of food.
—Oswald

certain refreshment and exhilaration of the spirits which are still further conducive to strength and vigor. A close association with nature, also, brings with it a calm of feeling, contentment, and rest for wearied, unbalanced nerves.

Rowing, especially, is an exercise and pastime well calculated to give both strength and refreshment. It is a splendid all-around exercise, bringing into action a great variety of muscles, principally those of the back, arms, and chest. Overexertion in racing often cancels these benefits.



Water, Air, and Sunshine

SWIMMING

"The benefits of swimming," says the *Ladies' Home Journal*, "are many. Nearly all of the muscles, especially the large ones, are brought into play. The muscles of the back are used to keep the head above water. It naturally follows that swimming is excellent training for a correct, graceful carriage. It also helps to straighten round shoulders. Breathing is greatly influenced, for more air than usual is taken into the lungs, which are expanded to their extreme limit. Circulation is stimulated, and the body as a whole is invigorated. The muscles of both arms and legs are actively exercised, and the chest is broadened.

"All of the muscles of breathing are put to the test. The pressure of the water on the chest is greater than the pressure of air, so this extra effort of resistance must

One hour of useful physical work each day is better than a life insurance policy.

be met. Breathing should correspond to the movements of swimming. When the legs are extended, the breath is expelled; when the legs are drawn in, the air is breathed into the lungs.

"Never hurry when you swim. If you do, you will expend much effort for little advantage, and will not reach your goal any quicker than if you followed a quiet, even stroke.

"Besides swimming on the chest, one can learn to swim on either side, as well as on the back. This last method is not so tiresome as chest swimming, neither is it so rapid. The legs are exercised most when one is swimming on the side. When you wish to rest, just turn on your back and float. This is the simplest lesson you can learn in the water.

"It is well to observe several cautions:—

"Never swim directly before or after eating. Allow an hour and a half both before and after meals.

"Until you become an expert swimmer, always swim toward the shore, never away from it.

"A short stay in the water is much better than a long one.

"Never try to swim when you are tired.

"Never stay in the water when you feel cold.

"After your bath, take a little run on the beach before you dress."

HEAVY GYMNASTICS

Heavy gymnastics, unless taken with considerable care, are not generally recommended by physicians. Light physical exercises are better adapted to a symmetrical building up of all parts of the body. Heavy exercises weary, and strain, and break down the muscles, and are often a positive danger to life and limb.

Calisthenics are the best form of exercise for developing symmetry and grace.

"Exercise should always be in proportion to the strength of the constitution. If carried beyond that point, you will soon be aware of it. It is then that waste begins to exceed nutrition, and exhaustion takes the place of strength. Avoid the two extremes—overexercising and lack of exercise. It is better to exercise frequently and at moderate intervals, until the increased action of the nerves and blood-vessels becomes more permanent. Then as soon as nutrition exceeds waste, the various organs used gain in size, strength, and activity; but if the exercise is carried too far, so as to fatigue and exhaust the vital powers, then waste exceeds nutrition. If, however, you refrain altogether from exercise, the vital functions decay for want of the requisite stimulus. Use moderation in all things."

PHYSICAL CULTURE

Light physical exercises, taken intelligently at proper times, are much better for the development of all parts of the body than heavy gymnastics. The discovery of this important truth has led to the development during recent years of several excellent physical culture systems.

"SLOWNESS, PRECISION, AND DEFINITE AIM"

"Exercises," says Emerson in "Physical Culture," "should be begun gently. The utmost power should be put forth at the middle of the exercises, and the latter part be less strong. One should never start suddenly in exercise. What is the record in regard to animals? How many horses have fallen dead when suddenly started from a walk! Again, how many have fallen dead when suddenly stopped at the height of speed! The same facts are true of men. About two years ago a gentleman started to catch a train; he caught the train, stopped, and dropped dead. It was not the running that killed him; it was not the vigor of

A system of exercise should be practised that will bring into play all the muscles of the body.

the exercise; it was the sudden stopping that killed him. We lay stress upon three directions for exercise, viz., slowness, precision, and definite aim."



Chest Up

In this brief chapter on Exercise, we can give only a few suggestions on this wonderfully interesting and important subject. Books and journals, giving full instructions how to take these exercises, are easily obtained everywhere.

CORRECT STANDING POSITION

Place the heels together at an angle of about sixty degrees. Carry the weight of the body chiefly upon the balls of the feet. Draw back the hips and abdomen, throw the chest forward, and hold the chin in.

When one has practised correct standing and good carriage for the chest and abdomen until it has become a habit, the breathing capacity of the lungs is enlarged and the vital power of the body increased.



Head Up

A few simple suggestions may assist those who find it difficult to stand and walk erect:—

1. Raise the chest as high as possible, and hold it there. This effort will throw all other parts of the body naturally into the right position

2. By thinking of a spot on the top of the head, and trying to lift it, practically the same result will be secured as from the raising of the chest.

Youth will never live to old age, unless they keep themselves in health with exercise.—Philip Sydney

3. If inclined to stoop, stand for a half hour each day with the back straight against a door-casing. Touch the casing with the heels, the back of the head, and all other points of the back possible. Read or study during the time to relieve the monotony.



For Round Shoulders

4. Walk the floor for a half hour each day with a heavy book balanced on the crown of the head. It is difficult to hold the book in place when out of the correct position.

BREATHING EXERCISES

Assume correct standing position,—chest up, shoulders and hips thrown back, and body balanced on balls of feet. Place hands on hips, and inhale slowly and deeply; exhale slowly; relax. This will strengthen and develop the chest and abdominal muscles.



A Half-Hour Book Lesson

Deep breathing should accompany many of the light physical culture movements. It may also be practised with benefit at all times of day when walking or at work.

"Breathing exercises should be taken each morning upon arising. Breathe deeply, sending the breath down to the waist line. Place the hands at the waist line, and when inhaling force the hands apart. This will fill the bottom of the lungs. The majority of people are said to use the full lung in breathing but seldom. Deep breathing will develop the chest, lungs, and throat, and build up the entire system."

"A little time devoted to exercise every day is better than a little more time every other day."

"Pure, fresh air at all times, and plenty of sunlight," says Katherine A. Fenelow, M. D., in the *Ladies' Home Journal*, "are essential to gain and to maintain health. The lungs are like a deep well, into which fresh air will not go unless in some way a current is made. We make this current stronger by deep breathing. These lung gymnastics develop and expand the lungs and chest, and increase the circulation of the blood. . . . People do not seem to realize that a lot of poisonous and devitalized air remains constantly in the lungs themselves unless special efforts are made to remove it. The result is pale face, sallow skin, weak pulse, cold hands and feet, and sluggish bowels, with an attendant train of enfeebled powers, non-assimilation, and lack of energy—all proofs of flagging vitality. These conditions, especially where there is hereditary or acquired predisposition, open the way to possible and probable consumption. Active exercise, or well-planned breathing movements, remove this vitiated air. Laughing, by increasing the tension in our lungs, arrests the blood flow, and induces the taking of deep inspirations. It brings into play the whole of the lungs, and, by increasing their work, is one of the best exercises for developing the chest."



Position for Deep Breathing



Inspiration

"Breathing through the nostrils with the mouth closed

Every man's task is his life-preserver.
—Emerson

is the only proper way. It is right because breathing is the primary function of the nostrils. Improper breathing is the chief cause of nasal catarrh."



Expiration

Strengthening the lungs, especially the apexes, may be done by blowing through a small pipe-stem, as that will allow the breath to pass out slowly. First fill the lungs with good air, then blow with steady force vigorously but not violently; or inhale a full breath and hold it for a few moments under steady pressure until the apexes of the lungs are filled, which will be indicated by an enlargement of the neck at its junction with the shoulders. A few times daily will be sufficient.

ROUND SHOULDERS

"A gymnasium director of long experience disapproves the use of shoulder-braces. They weaken, so he thinks, the muscles whose function it is to keep the shoulders in their normal position. This they do in two ways—by relieving the muscles of their work, and by putting a constraint upon them and so depriving them of a normal supply of blood.

"Instead of artificial shoulder-braces, the director recommends the frequent and persistent use of exercises specially adapted to promote an erect carriage.

"1. Make it a rule to keep the back of the neck close to the back of the collar.

"2. Roll the shoulders backward and downward.

"3. Try to squeeze the shoulder-blades together many times a day.

There can be no health without exercise.

"4. Stand erect at short intervals during the day,—'head up, chin in, chest out, shoulders back.'

"5. Walk or stand with the hands clasped behind the head and the elbows wide apart.

"6. Walk about, or even upstairs, with from ten to forty pounds on the top of the head.

"7. Try to look at the top of your high-cut vest or your necktie.

"8. Practise the arm movements of breast-stroke swimming while standing or walking.

"9. Hold the arms behind the back.

"10. Carry a cane or umbrella behind the small part of the back or behind the neck.

"11. Put the hands on the hips, with elbows back and fingers forward.

"12. Walk with the thumbs in the armholes of the vest.

"13. When walking, swing the arms and shoulders strongly backward.

"14. Stand now and then during the day with all the posterior parts of the body, so far as possible, touching a vertical wall.

"15. Look upward as you walk on the sunny side of the street.

"The foregoing exercises, it will be seen, are happily varied, and are, many of them, such as can be practised by anybody in almost any occupation. If he can not use one, he can another.

"The director goes on to say that even in a gymnasium a man must be on his guard against forms of exercise that tend to induce a stooping posture. 'As round-shouldered as a gymnast,' he says, has almost passed into a proverb.

"He recommends also what he calls a 'lie-a-bed exercise.' 'Lie on the back of the head and the heels by arch-

"Work is the grand cure for all the maladies that ever beset mankind,—honest work, which you intend getting done."

ing the back,' and repeat the operation a dozen times or so."—*Public Health Journal*

EXERCISE BENEFICIAL TO THE BONES

"The bones, insensible as they may seem, possess all the attributes of living and organized parts. They are all provided with blood-vessels, and they are constantly undergoing the process of decay and renovation. Proper and sufficient exercise, therefore, is as essential to their well-being as blood is to the heart, air to the lungs, or light to the eyes. When that condition is not complied with, the bones become feeble, diseased, and unfit for their functions, just as do the softer parts of the body."

A SUGGESTION TO WOMEN

A woman can not work at dressmaking, tailoring, or any other sedentary employment, ten hours a day, year in and year out, without enfeebling her constitution, impairing her eye-sight, and bringing on a complication of complaints; but she can sweep, cook, wash, and do the duties of a well-ordered house, with modern arrangements, and grow healthier every year. The times in New England when all women did housework a part of every day were the times when all women were healthy.—*Harriet Beecher Stowe*

Such work as cooking, sweeping, dusting, making of beds, and even scrubbing of floors, will be found a rest and relaxation to both body and mind, not only to those women of sedentary employment, but also to those whose time and strength are almost wholly given to the ceaseless, feverish rounds of pleasure. It will be found to improve the figure, cure shattered nerves, and be a factor toward education in general. Housework is also a delightful employment when done intelligently.—*Anna L. Colcord*

"Continued inactivity is one of the greatest causes of debility of body and feebleness of mind."

EXERCISE FOR STOUT AND THIN

Exercise is for both the stout and the thin. Exercise will reduce flesh; the weight may not decrease very rapidly, but you will have good flesh, and the useless fat will disappear. If you are thin, it will bring the blood to the parts of the body used, and thus nourish them.—*Good Housekeeping*

GRACEFUL POISE

"No matter how beautifully proportioned the body may be, if it is not held erect, and properly and gracefully poised, there will be none of that harmony and grace of appearance which all women so much desire.

"The importance of a graceful carriage and a well-poised body can hardly be emphasized too strongly. Even a badly proportioned figure can frequently be made to appear comely, if the body is held in a proper attitude.

"Do not allow the shoulders to sag forward; hold them well back and down.

"Where the body is held erect by strong and harmoniously developed muscles, this graceful carriage should be maintained beyond middle age and frequently to advanced age.

"Strong muscles are essential to grace of bearing and that proud, erect carriage of the body that is so admirable in both men and women.'

"Ugliness is unnatural. A normal, healthy condition of the body is always indicated by symmetry and grace of outline and beauty of form."

IMPORTANCE OF A FULL CHEST

It scarcely seems necessary to emphasize the importance of a deep, full chest. It is admired by every one. It indicates the possession of vitality and health, and is usually

The laughter of man is the contentment of God.
—John Weiss

accompanied by superior traits of character. It is the man or woman with a deep, full chest who lives to a ripe old age. Perfect poise, queenly bearing, and graceful carriage of the body are well-nigh impossible with a flat chest. —*Beauty and Health*

VALUE OF LAUGHTER

"'Laugh and grow fat' is an old adage, but whether you want to grow fat or not you ought to laugh, according to Rev. Frank Crane, of Chicago. Here are some of his sayings:—



Running Exercise

"Man is the only animal that was made to laugh, and as science teaches that laughter is a sure boon to health, it is a sin for us to substitute excessive drug-taking for laughter.

"Laughter increases the blood circulation.

"It enlarges the heart.

"It expands the lungs.

"It jiggers the diaphragm.

'It promotes the dioculation of the spleen.

"Beware of theologians who have no sense of mirth; they are not altogether human.

"Keep your chin in.

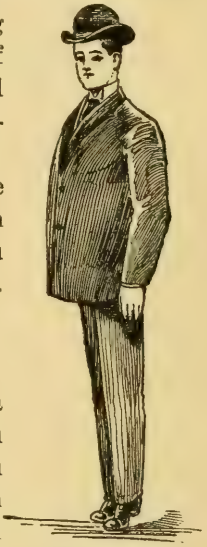
"Don't take your troubles to bed with you; hang them on a chair with your trousers or drop them in a glass of water with your teeth."—*Scrap-book.*

FOR COLD FEET

"1. Nothing will warm the feet more quickly or effectually than a good run out-of-doors, or, if that is im-

Thomas A. Edison, on being asked if genius is not inspiration, replied, "No, genius is perspiration."

possible, a 'run in place.' In your out-of-door run, run on the balls of the feet, leaning a little forward, and holding the arms in an easy position at the sides. Keep the mouth closed, breathing slowly and deeply through the nose. If you are careful to breathe slowly and evenly, you can run much farther without getting out of breath.



Exercise for Feet and Lungs

"2. Rise quickly on the balls of the feet; hold the position for an instant, then slowly let the heels sink. Inhale as you rise, and exhale as the heels come down. Repeat from twenty to thirty times."

FOR COLD HANDS

"If your hands are cold, give them a good, hard shaking. Imagine that you have dipped them in water, and that you wish to shake off every drop. Shake them briskly until the fingers begin to feel big and swollen. Keep on shaking them till each feels as 'big as a barrel,' and shortly they will be tingling and glowing with warmth."



A Good Shaking

LABOR AND STUDY

When useful labor is combined with study, there is no need of gymnastic exercises; and much more benefit is derived from work performed in the open air, than from indoor exercise.

When a simpleton wants to get well, he buys something to take; a philosopher gets something to do.—Hall

When you have been studying hard, it is better to go out-of-doors and run and play, or chop wood, than to sit in the window and read a story. If you read the story, you are keeping the same nerve cells at work that helped you study.—*Rossiter*

EXERCISE FOR THE SICK

Thousands are sick and dying around us who might get well if they would; but their imagination holds them. They fear that they will be made worse if they labor or exercise, when this is just the change they need to make them well. Without this, they can never improve. They should exercise the power of the will, rise above their aches and debility, and engage in useful employment, and forget their aching backs, sides, lungs, and head.—*Mrs. E. G. White*

BABY'S EXERCISE

"The baby takes exercise by kicking, twisting, creeping, and waving its hands. It exercises its lungs by crying. A healthy baby is never quiet unless it is asleep."

BATHING A GOOD EXERCISE

Cold bathing is one good exercise. It makes you breathe faster and more deeply. Dash some cold water on your chest and see.—*Rossiter*

The morning bath—taken with cold water—is most refreshing and invigorating. It is more effective than all the pills of the apothecary. Thereby the thousands of minute pores are kept open and unclogged, and the skin sweet and pure. It is more beautifying than the costliest cosmetic, and more vivifying than all the drugs of the medicine man.

There are many people, however, who are not strong enough to react properly from a cold morning bath. For such the tepid hand bath is more beneficial.

There are temptations which strong exercise best enables us to resist.—J. Lubbock

"The tepid wet-hand rub," says the *London Good Health,* "is one of the mildest and gentlest of hydropathic tonics, and it can be taken by almost any one whether young or old. It has a gentle, stimulating effect upon the heart, and strengthens this vital organ. The lungs, too, are stimulated to increased activity, and the circulation is much improved. The general effect upon nutrition is most beneficial.

"If taken properly, the skin is left in a state of warm glow, as indicated by the scarlet-red color.

"It is extremely important to secure a good reaction. Without this, the bath would be worse than useless."

THE VOICE OF EXERCISE

I give the sparkling eye that knows no fear,
The springy step that lightly treads the ground,
The heart that pumps the red blood rich and clear—
A stream of health upon its mission bound.

I give the shoulders broad, the deep, strong chest,
The well-poised head where Reason keeps her throne,
The arm with steely muscles well possessed—
A weapon fit to cope the world alone.

Away with dissipation, man, be free;
Make me thy friend, and lengthen life's short span;
I am one of God's greatest gifts to thee—
An antidote that helps to make the man.

—*Geo. H. Herbert*

Better to hunt in fields for health unbought,
Than fee the doctor for a nauseous draught;
The wise for cure on exercise depend;
God never made His work for man to mend.

—*John Dryden*



FAREWELL TO WORRY

Let us rest ourselves a bit,
Worry? Wave your hand to it,
Kiss your finger-tips and smile
It farewell a little while.
Weary of the weary way
We have come since yesterday,
Let it fret us not, in dread
Of the weary way ahead.

—*James Whitcomb Riley*

Rest from worry would relieve us of life's most wearing burden. Man is seldom worn out by labor. Both physical and mental work are beneficial. Active workers live longer and have better health than easy-going, idle people. It is not so much labor which exhausts energy, and wastes vital power, as it is the worry and anxiety which we take home with us from the office and workshop. Too many men, on leaving their offices, button up their cares inside their coats, take them home, and make bosom companions of them. At meals these anxious cares banish conversation, make the heart sore and heavy, and spoil the best of dinners; and then indigestion helps the worry in its warfare upon the vitality of its victim.

Persons who have formed the unpleasant habit of eating, sleeping, and walking in companionship with their cares, should take strong, resolute measures to banish them. When the day's work is done, file your cares under a heavy paper-weight, close them up in your roller-top desk, bolt the door resolutely upon them, and go home a free man, master of yourself and your business. Even though it may be a struggle at the time, form the habit

He that riseth late must trot all day, and shall scarce overtake his business at night.—Benj. Franklin

of taking home a cheerful face and a light heart to those you love. This is the only way a busy, brain-working man can rest. And so with every employment in life; we must have times for rest and recreation, when all the sordid, petty cares of life are laid aside.

The watchword, or motto, of the Australasian eight-hour-day movement, is that the twenty-four hours should be divided into three equal parts,—eight hours for labor, eight hours for sleep, and eight hours for meals and recreation.

THE BEST REMEDY

The religion of Jesus Christ is the best antidote for worry. Without "that peace which passeth all understanding," and which God alone can give, the human search for rest will be in vain. The definite assurance that the mighty hand of an all-powerful God, though sometimes unseen, is, nevertheless, working with us to accomplish what will be for our good, is a wonderful strength to the soul when the cares of life press heavily. Some one has beautifully said, "Even the great God takes short steps by our sides, that we may walk with Him." When one has been able to grasp as a reality this blessed manner of walking with God, cares and trials can be more easily laid aside.

The world is wide,
In time and tide,
And God is guide;
 Then do not hurry.

That man is blest
Who does his best,
And leaves the rest;
 Then do not worry.

—*Dr. Deems*

Nothing hurts the brain cells more than worry.
—Rossiter

KEEP TROUBLES OUTSIDE

The secret of finding rest from worry lies in our ability to keep the heart closed securely against it. In this sin-burdened world, trouble and sorrows and disappointment await us on every hand; our safety lies in keeping our hearts with all diligence. Jesus has said, "Let not your heart be troubled." "In the world ye shall have tribulation, but be of good cheer," that is, keep the heart secure against intrusion from these foes which war against our peace and rest. Paul was "troubled on every side, but not distressed;" he did not permit the troubles to come inside. "The water without the ship may toss it; but it is the water within the ship that sinks it."

"The mind," says Bishop Huntington, "wants steadying, and setting right many times a day. It resembles a compass placed on a rickety table; the least stir of the table makes the needle swing around and point untrue. Let it settle, then, till it points aright. Be perfectly silent for a few moments, thinking of Jesus; there is an almost divine force in silence. Drop the thing that worries, that excites, that interests, that thwarts you; let it fall like a sediment to the bottom, until the soul is no longer turbid; and say, secretly, 'Grant, I beseech Thee, merciful Lord, to Thy faithful servant pardon and peace; that I may be cleansed from all my sins and serve Thee with a quiet mind.'"

LIVING A DAY AT A TIME

The coming year will have three hundred and sixty-five days in its calendar, but really will have only one working-day, and that is called "To-day." That is all you will be accountable for; none but fools live in "to-morrow." Serve your Master by the day. Each of the four and twenty hours brings its own duties to be done, its own

A mind in harmony with God is free from worry, from fear, from anger.—Rossiter

temptations to be conquered, its own loads to be carried, and its own progress to be made heavenward. There never yet was a Christian strong enough to carry to-day's duties with to-morrow's worries piled on top of them. Take short views, and never try to climb walls until you get to them, or to cross a bridge until you reach it. Begin every day with Jesus Christ, and then, keeping step with Him, march on to duty over the roughest road that lies before you, and in the teeth of the hardest head wind you may encounter. "My times are in Thy hands," and they could not be in better hands. Our times are in our all-wise and all-loving Father's hands. He takes care of us, and yet we can not tell just what to-morrow will bring forth. For one, I am glad of it. So let us sing:—

"Lead, kindly light, amid the encircling gloom,
Lead Thou me on!
The night is dark, and I am far from home;
Lead Thou me on!
Keep Thou my feet; I do not ask to see
The distant scene; one step's enough for me."

—*Theodore L. Cuyler*

TWIN SISTERS

"Worry is the twin sister of nervousness. Neither should ever enter into the life of any one. God, in His all-wise providence, put the head of a human being on top that all beneath it might be subservient to it. There is something wrong above the eyes, in the region of the will-power, when one becomes nervous in the sense of excitability. 'Know thyself' is good: 'control thyself' is better. Worry and excitement never aided any one. Any fool can get along when everything is all right, but it takes a wise man, a level-headed man, to get along and not worry or become nervous when everything seems all wrong."

"The Bible is a soother of the nerves, and imparts solidity of mind and firm principles."

HE WORRIED ABOUT IT

When the weather was murky, he gazed at the sky,
And he worried about it;
He watched the gray cloudlets go scurrying by,
And he worried about it;
"I'll bet it will rain," he would say to a friend,—
All manner of dire disaster portend,—
His life was one fret from beginning to end,
For he worried about it.

He had a few troubles, as humankind will,
And he worried about it;
The good he belittled, and magnified ill,
And he worried about it;
His health was nigh perfect, but then, if you please,
He fancied he had almost every disease,
And martialed his ailments in columns of threes,
And he worried about it.

—*St. Paul Dispatch*

HOPE

Hope is an "anchor to the soul, both sure and steadfast." It is the forerunner of rest. To be able with the eye of faith to pierce the dark, heavy clouds that sometimes hang above us, and see beyond the silver lining, where the sun always shines, will give the rest we need.

A MERRY HEART

"A merry heart doeth good like a medicine." "A sanguine temperament," says Margaret E. Sangster, "which forecasts the best, and fears not the worst, is a great blessing to its possessor, and so is a cheery, sunny disposition, which sees the humorous side of things and can even enjoy fun at its own expense. Gloomy forebodings and a chronic habit of worry make life a weariness, and the melancholy victim of this physical and mental make-up spreads a pall

A merry heart doeth good like a medicine.
—Solomon

over the brightness of others. If only the tired one would remember the words of the poet:—

"'A merry heart goes all the day;
Your sad tires in a mile-a.'

"How may one procure the blessed gift of the merry heart? It is not for sale in any market, nor can it be paid for with gems and gold, for its price is far above rubies, and earthly goods are as dross when compared with it. Our heavenly Father sometimes bestows it on us at the start, and thrice envied among men may he be who inherits the capacity for seeing the bright side, for laughing when things go wrong, and for springing up with new courage after every disaster. It is magnificent not to feel one's self beaten, and never to acknowledge defeat in any right enterprise. This temperament is too mercurial to be often tired, and too buoyant to be ever crushed. And sometimes the merry heart, though not inherited, is won by him or her who overcomes obstacles and gains the victory over material odds through steadfast faith in God."

RESOLVE

To keep my health!
To do my work!
To live!
To see to it I grow and gain and give!
Never to look behind me for an hour!
To wait in weakness, and to walk in power,
But always fronting forward toward the light—
Always and always facing forward toward the right.
Robbed, starved, defeated, fallen, wide astray—
On, with what strength I have!
Back to the way!

—Charlotte Perkins Stetson

**"Sleep that knits up the raveled sleeve of care,
Chief nourisher in life's feast."**

SLEEP

Tired Nature's sweet restorer, balmy Sleep!
He, like the world, his ready visit pays
Where fortune smiles; the wretched he forsakes;
Swift on his downy pinion flies from woe,
And lights on lids unsullied with a tear.
—Young's Night Thoughts

Come, Sleep! O Sleep, the certain knot of peace,
The baiting place of wit, the balm of woe,
The poor man's wealth, the prisoner's release,
Th' indifferent judge between the high and low,
With shield of proof shield me from out the press
Of those fierce darts Despair doth at me throw;
O make me in those civil wars to cease;
I will good tribute pay, if thou do so.
—Sidney

THE VAST IMPORTANCE OF SLEEP

"Numerous and harmful stories are told about the ability of great men to do without sleep. The foolish young man reads that Napoleon slept only three or four hours at night—and he cuts down his hours of sleep. He might better open a vein and lose a quart of blood than lose the sleep, which is life itself.

"Most of the stories told about great men doing without sleep are mere lies. Some of them are true. For instance, it is undoubtedly true that Napoleon—an inconceivably foolish, reckless man in matters affecting his physical welfare—did deprive himself of sleep in his early years. But he paid for it dearly. In his last battles his power of resistance was so slight that he actually went to sleep during the fighting. Chronic drowsiness weakened his brain, weakened his force of character. The foundation of his final defeat was laid in his Russian campaign, when lack of sleep and unwise living generally had taken away his

Sleep is the best cure for waking troubles.
—Cervantes

mental elasticity and deprived him of the power to form and carry out resolutions.

"You begin life with a certain amount of vitality, a certain initial velocity, which carries you through life and makes possible certain accomplishments. When you deprive yourself of sleep, you squander this original capital.

"The food which you eat is digested and transformed into new tissue, into blood, nerve, muscle, and brain, while you are sleeping.

"Any man or woman who has suffered from insomnia will testify that lack of sleep decreases weight and diminishes vitality more quickly than anything else."

IT GIVES A NEW WORLD DAILY

It is one of the moral uses of the night that it gives the world anew to us every morning, and of sleep that it makes life a daily recreation. . . . God is thus all the while presenting the cup of life afresh to our lips. Thus, after a night of peaceful sleep, we behold the world as new and fresh and wonderful as it was on the first morning of creation, when God pronounced it "very good." And sleep itself is a divine alchemy that gives us ourselves with our primitive energy of body and mind.—*T. T. Munger*

NATURE'S HOURS FOR REPAIRS

Sleep is tired nature's opportunity to make repairs. Nothing is more necessary to health and strength than quiet, sound sleep. Do not curtail your sleep; be regular, and guard the sleeping hours as closely as office hours. If you are obliged to lose a certain amount of sleep at one time, make it up at another. If nature is deprived of this opportunity for making repairs, soothing the nerves, and rebuilding the energy, she will some day exact a heavy penalty, with accrued interest.

The best time for sleep is between the hours of nine at night and five in the morning.—Chas. Wesley Emerson

EARLY TO BED

The hours before midnight are the best for sleep. The society practice of retiring late and rising late is a bad one. Adults should have at least eight hours' sleep out of the twenty-four. In health it is well to retire between nine and ten, and arise between five and six. The idea, so common, that a man needs only six or seven hours' sleep is a foolish one, which is almost sure to end in premature decay of the natural physical forces.

ENERGY A PROTECTION FROM DISEASE

Sleeplessness and nervousness are evils of civilization. In the world's mad strife for fame and riches, business is carried on in a fever of excitement, and, under the influence of depressing forebodings, "the candle is burned at both ends," and the flame is soon quenched in darkness. Energy and vitality are the forces within us with which we can successfully combat disease. But with these forces spent, man soon becomes a prey to the many germs of disease which are ever ready to overcome him. Conserve your energy by temperate living and labor during the day, and add daily to the precious store by an abundance of rest in sleep. The quality of a man's work, also, is greatly improved by proper rest in sleep.

CONDITIONS HELPFUL TO REFRESHING SLEEP

1. The sleeping-room should be free from dampness, having been sunned and aired well during the day.

2. Ventilation should be such that the sleeper will have an abundance of fresh, pure air throughout the night.

3. The bed should be comfortable, and the clothing light and warm.

4. Physical exercise should be taken every day. Tissues loaded with poison, and nerves worn-out with heavy labor, are a bad combination for sleep.

Laughing cheerfulness throws sunlight on all the paths of life.—Richter

5. Evenings should be spent quietly at home. Complete relaxation and homely evening joys are good preparations for sleep.

6. When the nerves are tired from a heavy strain, a neutral bath (see chapter on "Bathing") is usually conducive to sleep. Tonic treatments, such as hot and cold sprays, salt glows, and rubs, are stimulating, and often prevent sleep.

7. "The stomach, when we lie down to rest, should have its work all done, that it, as well as other portions of the body, may enjoy rest." Two meals are better than three for brain workers, and those having slow digestion. If a third meal is eaten, it should be something light and easily digested, and should be taken several hours before retiring.

"REST AWHILE"

When the disciples had for a long time been overburdened with travel and toil, the Master, who was ever thoughtful of their physical as well as their spiritual needs, said, "Come ye yourselves apart into a desert place, and rest awhile." Such periods of rest are sometimes imperative. Nature sometimes reaches a point where the ordinary daily means of rest are not sufficient to enable her to regain her usual elasticity and power. The great and often fatal mistake made by busy men and women is that of neglecting such needed rest too long. In the health resorts of every country may be found thousands of witnesses to physical procrastination. Happy is the man or woman who has the good sense, "that saving salt of life," to foresee the danger, and take the needed change and rest in time.

"I smile to think God's goodness flows around our restlessness."



It seems to me I'd like to go
Where bells don't ring nor whistles blow,
Nor clocks don't strike nor gongs don't sound,
And I'd have stillness all around,—



Not real stillness, but just the trees'
Low whispering or the hum of bees,
Or brooks' faint babbling over stones
In strangely, softly tangled tones.



Or maybe a cricket or katydid,
Or the songs of birds in the hedges hid,
Or just some faint, sweet sounds as these,
To fill a tired heart with ease.



If 'tweren't for sight and sound and smell,
I'd like a city pretty well;
But when it comes to getting rest,
I like the country lots the best.



Sometimes it seems to me I must
Just quit the city's din and dust,
And get out where the sky is blue—
And, say, how does it seem to you?

—*Eugene Field*

It is not work that kills men; it is worry. Work is healthy. Worry is rust upon the blade.—Beecher

LEARN TO SAY, "NO"

Overburdened men and women must learn to say, "No." The possibilities of trade spur the business man on, and it seems impossible, at times, to turn aside from the opportunities for money-making. Men of talent, in public positions, are often called upon for service and favors far beyond reason. It is hard to say, "No," to a smiling, approving public which bestows laurels and praise. Here good sense must again come to the rescue, or the very multitude which so lately cheered him on will choose another idol, and say of their unfortunate victim, "Poor fellow, he didn't know any better than to kill himself."

GET A TRANSFER

If you are on the gloomy line,
Get a transfer.
If you're inclined to fret and pine,
Get a transfer.
Get off the track of doubt and gloom;
Get on the sunshine train, there's room—
Get a transfer.

If you are on the worry train,
Get a transfer.
You must not stay there and complain,
Get a transfer.
The cheerful cars are passing through,
And there is lots of room for you—
Get a transfer.

If you are on the grouchy track,
Get a transfer.
Just take the happy special back—
Get a transfer.
Jump on the train and pull the rope
That lands you at the station Hope—
Get a transfer.

Anon.



CONVENIENT APPLIANCES

It is now conceded by all that frequent baths, taken intelligently and at the proper time, play an important part in the preservation of health. Every home should be provided with convenient appliances for taking the necessary baths. In building and furnishing a home, it is well to provide these facilities, even if it must be at the expense of some of the show and luxury desired in the parlor. Inability to secure these appliances, however, is no excuse for neglect; for water is abundant, and can be used without these conveniences.

THE IMPORTANCE OF FREQUENT BATHING

Of the importance of frequent bathing, the following terse statements are made in "Monitor of Health":—

"The skin, the superficial covering of the whole body, everywhere abounds in little mouths, or openings, called pores. There are more than two million of these openings upon the surface of the body. Each one is the external orifice of a capillary tube which acts as a kind of sewer to convey away dead, effete, and decomposing matter from the body. Each of these purifying organs is constantly at work, unless its mouth gets obstructed in some way. They are especially active in the summer season when the weather is warm, pouring out large quantities of perspiration, in which the offensive matters are held in solution.

"Now let us see what takes place if we pay no attention to the natural clothing with which we have been kindly provided. The sweat, or insensible perspiration, loaded with impurities, is poured out of two million little sewers,

A cold bath is refreshing and useful for a person in vigorous health.

upon the surface of the body. The watery portion evaporates, leaving behind all the foul matter which it contained, which adheres to the skin. This is what occurs the first day. The next day an equal quantity is deposited in the same way, making, with the previous deposit, a thin film of dirt covering the skin. The third day the quantity has augmented to the consistency of varnish. The fourth day the person becomes completely encased in a quadruple layer of organic filth. By the fifth day fermentation begins, and an unsavory and pungent odor is developed. The sixth day adds new material to the accumulating pollution, and still further increases the intensity of the escaping effluvia. Upon the seventh day, a climax of dirtiness is reached. The penetrating, pungent fetor becomes intolerable. The person feels as though he had been bathed in mucilage and molasses. When he approaches his more cleanly friends, they look around to see if there is not some fragment of carrion adhering to his boot. But the individual himself is unconscious of any unpleasant odor, his nose having become accustomed to the stench; or if he recognizes it, he flatters himself that as no one can see the condition of his cuticle, he will escape detection. Vain delusion. Every person whose organ of smell is not wholly obliterated by snuff or catarrh will single him out as quickly as a dog detects the exact locality of a weasel."

THE MISERY OF UNCLEANNESS

Your hands and face that you do wash every day, and sometimes many times a day, do not need the washing so much as the rest of your body that is covered with clothes. The clothes shut out the air and sunshine, and so the poisons and the scales collect on the skin, and dry and harden, and stop up the pores, until you have a very unclean feeling.—*Rossiter*

Health is largely dependent upon a free circulation, unobstructed perspiration, and a good digestion.

IN HEALTH OR IN SICKNESS

Whether a person is sick or well, respiration is more free and easy if bathing is practised. By it the muscles become more flexible, the body and mind are alike invigorated, the intellect is made brighter, and every faculty becomes livelier. The bath is a soother of the nerves. It promotes general perspiration, quickens the circulation, overcomes obstructions in the system, and acts beneficially upon the kidneys and urinary organs. Bathing helps the bowels, stomach, and liver, giving energy and new life to each. It also promotes digestion, and instead of the system's being weakened, it is strengthened. Instead of increasing the liability to cold, a bath, properly taken, fortifies against cold, because the circulation is improved, and the uterine organs, which are more or less congested, are released; for the blood is brought to the surface, and a more easy and regular flow of the blood through all the blood-vessels is obtained.—*Mrs. E. G. White*

"Neglect of daily bathing tends to clog the pores, prevents the throwing out of effete, waste, and morbid matters, and causes the reabsorption of matters already expelled, and is thus a fruitful cause of disease."

"A clear skin is one of the essentials of good health and beauty, and nothing conduces more to this end than frequent baths and brisk rubbings. They will do much toward keeping the skin soft and the whole body vigorous."

THE DAILY BATH

A bath should be taken every morning unless there is some unusual physical condition to prevent it. The best time for this bath, and fortunately the time most convenient for nearly every one, is in the morning, before dressing. It is not necessary that this bath should be elaborate, nor consume more than five minutes' time. A gentleman who

Delicate persons should use a tepid hand bath in a warm room.

has been greatly benefited by these morning baths, in giving a friend directions how to take them, said that his bath was made up of one part water, four parts rough towel-rubbing, and five parts friction with the bare hand. Almost every one can take a bath like this and be benefited by it. Persons who might receive serious injury from cold plunge baths can almost invariably take this bath with benefit.

If the weather is cold, it is not necessary to remove all of the clothing at once. Drop the nightclothes down to the waist; wet the hands and briskly splash the face, arms, and body. The water should not be very cold, if tepid water can be readily obtained. In most cases, however, if only a little be used, cold water will not be unpleasant or cause a chill, if the rubbing is brisk. This splash may be finished in a minute; then rub vigorously and thoroughly dry with a rough turkish towel. A smooth cotton or linen towel is about as good for drying the skin as supercalendered paper is for a blotter.

This will finish one-half the bath, according to the above directions. Now comes the hand friction. Beginning with the wrists, rub the arms, neck, and body lightly and rapidly, until every inch of the surface is aglow. Then put on a woolen shirt or some other short, warm garment, if the temperature of the room is too cold for comfort. Carefully avoid any reaction or chill. Bathe the rest of the body as described above. Although this early bathing may seem a little unpleasant at first, in a few days it will seem a luxury. The exercise is invigorating, the skin is stimulated, and all of the organs of the body are toned up for the day's work; and the glow of warmth thus created will remove the temptation to overheat the house by fires to warm up a sluggish system.

The best time for bathing is when the stomach is empty or nearly so.

WARM AND HOT BATHS

The cool, vigorous hand bath is not sufficient to keep the body thoroughly clean. A warm or hot bath should be taken at least once a week to cleanse the body thoroughly. A good quality of toilet soap that will not injure the skin should be used.

NEUTRAL BATH

The neutral, full bath, taken at a temperature of about ninety-eight degrees, is particularly soothing and restful to the nerves after a day of taxing mental work. A cold bath, or hand rub, generally stimulates, and may prevent sleep, while the neutral bath quiets the nerves and promotes sleep. Fill the tub well; be sure that the temperature is right; then lie quietly in the bath as long as it is agreeable and restful.

COLD BATH

Cold baths stimulate and harden people who are strong and who always react vigorously. Persons who can take them without injury find them an excellent preventive of colds. By beginning with water not too cool for comfort, the temperature may be lowered gradually, until the cold bath is pleasant and beneficial. They should never be persisted in by persons who, from low vitality or weak circulation, are chilled and unable to react with a pleasant, vigorous glow. If unaccustomed to cold bathing, it is well to begin cautiously.

GENERAL SUGGESTIONS

1. Vigorous rubbing is often the best part of the bath.

2. If for any reason water can not be secured, or should not be used, a dry rub with a coarse towel or the bare hand will stimulate the skin and refresh and invigorate the body.

"Age itself is not unamiable while it is preserved clean and unsullied."

3. The neutral bath is the best to take when exhausted, whether mentally or physically.

4. Never bathe within two or three hours after eating.

5. A bath should never be taken when overheated. A cold plunge at such a time, though perhaps agreeable, is positively dangerous. Always wet the head before taking a full bath.

6. At the close of a warm or a hot bath, turn on the cold water, cooling the bath gradually, thus closing the pores and lessening the liability of taking cold. This method of cooling is better than a cold shower, pouring, or a plunge, as it does not cause such a sudden shock.

A GOOD BATH POWDER

A delightful bath powder, and one that will relieve excessive perspiration, is made by the following recipe: Powdered starch, eight ounces; powdered orris-root, two ounces; camphor, one dram. Reduce to a powder, and put in small cheese-cloth bags.

A RECIPE FOR A DAY

Take a little dash of water cold,
 And a little leaven of prayer,
And a little bit of morning gold,
 Dissolved in the morning air.
Add to your meal some merriment,
 And a thought for kith and kin,
And then, as your prime ingredient,
 A plenty of work thrown in.
And spice it all with the essence of love,
 And a little whiff of play;
Let the wise old Book, and a glance above,
 Complete the well-made day.

—*Amos R. Wells*



OPEN THE DOOR

"Open the door, let in the sun;
He hath a smile for every one;
He hath made of the rain-drops gold and gems,—
He may change our tears to diadems,—
Open the door."

"Come out in the sunshine. O gather its wealth!
There's joy in the sunshine, and beauty, and health.
Why stay in the shadow? Why weep in the gloom?
Come out in the sunshine, and let your soul bloom."

The sun is God's greatest agent for giving life and health and beauty. He paints the skies, the leaves, and the flowers, and under his genial rays all nature thrives. Plants and shrubs grown on the shady side of the house are weak and sickly. They soon wither and die in a darkened room. Vegetables often sprout in a cellar, but their white, sickly-looking shoots will run many feet toward a crack or knot-hole, and the first tint of green is taken on when they reach the sunshine.

Men, women, and children are like the plants. They can not live and thrive in darkened rooms. One of the first and best rules of housekeeping is that every room be opened to the sunshine, for a few hours at least, each day. The practice of using many heavy curtains should be abandoned, as, in addition to collecting dust, they shut out the light and air. It is not uncommon to see windows covered with heavy shades, and sash curtains, and lace curtains, and last with heavy draperies. Dispense at least with these heavy draperies, then roll up the shades and let in the sunshine. It may fade the carpets and up-

Where the sunlight has no access, the physician will soon appear.—Italian Proverb

holstery, but what are they when compared to the life and health of the members of the household? Better have roses on the children's cheeks than in the carpets, if a choice must be made.

SUNSHINE A DISINFECTANT

Sunshine is the greatest of all disinfectants. It is claimed that even the germs of tuberculosis are destroyed by direct exposure to the sun's rays for three minutes. Sunshine is the natural enemy of disease, and an abundance of it is the first essential in the making of healthy homes.

"God is light." There is no night in heaven. Sunshine is always the symbol of life and joy and purity. A sunny, healthful, happy home is the best earthly type of heaven.

Rooms that are not exposed to the light and air become damp; the beds and bedding gather dampness, and the atmosphere is poisoned. Disease and death find ready entrance to such homes, and housekeepers, through pride and ignorance, become the unintentional murderers of their loved ones.

"Open the shutters. The sunlight sweet,
With its golden robe and dainty feet,
Just from the field that stars have trod,
Will not defile the house of God.

"Open the shutters. The rooms look cold;
The children's faces are pinched and old;
And from the door they look away
At laughing fields where sunbeams play.

"Open the shutters, and let the light
Flood all the room with billows bright,
And list how the notes of your song shall spring
Like a bird when morn hath touched its wing."



Making the Toilet

NOT FASHION, BUT HEALTH

It is not within the scope of this book to treat a topic like this exhaustively. No reference will be made to styles or customs. We will give a few suggestions on the care of the face, hands, hair, and teeth, only so far as this important subject relates to cleanliness and health.

The manner of making one's toilet is one of the most reliable indexes to character. White, polished teeth, clean, well-trimmed nails, and neatly kept hair are prominent marks of good breeding and refinement.

LITTLE ENEMIES TO HEALTH

These apparently little items have an important bearing upon the health and vigor of the body. The hair, if neglected, soon becomes matted and filled with disease germs and filth, and diseases of the scalp are likely to follow. The teeth, if not properly cleaned, soon decay; the breath becomes offensive, and the whole system is endangered. It is "the little foxes that spoil the vines." As in the tropics, the little white ant in the great forest tree works slowly and in the dark, night and day, unobserved by any one, until, at last, without warning, the giant tree totters and falls, so these little neglects stealthily undermine our health and vigor, until we suddenly discover that our vitality is wasted, that disease has the mastery, and we go to our graves a prey to our smallest enemies.

A CHARACTER INDEX

Nor is the subject of personal appearance of little importance. It is a great factor in achieving success in all the walks of life. This book is primarily a book for the

Cleanliness of body was ever esteemed to proceed from a due reverence to God.—Bacon.

home, and, in making this suggestion, we refer more particularly to one's cleanliness and tidy appearance when at home, or when pursuing the most common avocations of life. Nearly every one who professes the A B C of decency puts on his best and tries to "clean up" on special occasions. Such occasions do not afford an index to character. Inbred refinement and good taste are manifested most beautifully and surely in our daily habits at home.

The housekeeper who gets breakfast and appears at the breakfast table with uncombed hair and untidy dress is not a neat housekeeper, nor an attractive wife, no matter how well dressed she may be on public occasions. It is not a permanent satisfaction to any sensible husband to be able to feel proud of his wife when walking with her on the street, if he is ashamed of her whenever he brings home a friend unexpectedly. The really neat and attractive housewife comes with face glowing from the vigor of her morning bath, and meets her family at breakfast in neat attire,—her hair becomingly arranged, and her dress neat and tidy. Such a wife is an ornament to her home and to society.

CARE OF THE FACE

The complexion may be best improved by adopting rational living for the improvement of the health of the whole body. Both health and disease write in unmistakable characters upon the face. There perfect health smiles and blooms; and there, also, weakness and disease mark the progress they are making within.

COSMETICS

The most perfect complexion is given by health. No effort is generally made to improve such a complexion; but when age, sickness, or sorrow have taken away the bloom, many people are so unwise, or, perhaps, so ignorant of the

"Beauty commonly produces love, but cleanliness preserves it."

results, that they resort to the use of cosmetics or face-creams and lotions. Many of these cosmetics, which are manufactured, advertised, and sold so extensively, contain the most powerful poisons. Unscrupulous manufacturers take advantage of the pride and vanity of thousands of foolish people, who care more for looks than for health, and develop a thriving business by the sale of these poisons.

Instead of improving the complexion, these lotions are an injury. By their continued use the skin becomes rough, and loses its fresh, natural tint.

Instead of cosmetics, use plenty of soft water and pure toilet soap.

REMOVING TAN

1. A pint of hot water drunk before each meal will improve the complexion, and act as a general cleanser to the entire system.

2. If the neck or face is badly tanned from the summer winds, apply cucumbers cut in strips, binding on during the night; in the morning wash off and rub well with cold cream.

3. The summer tan can be removed by shaking together an ounce of lime-water, one ounce of oil of sweet almonds, and six grains of powdered borax. Apply to the face at night.

4. Rose water, eight ounces, and tincture of benzoin, two drams, makes one of the best skin tonics and whiteners.

5. On returning from a summer outing, "brown as a berry," get a supply of buttermilk, and bathe the burned face, neck, and arms with it two or three times a day, allowing it to dry into the skin. This is a good whitener.

6. Bran water, to which has been added a few drops of ammonia, is an excellent lotion to tone down and beautify the complexion.

Cleanliness is a mark of politeness, affection, and purity.

CUCUMBER LOTION

The cucumber lotion is excellent for whitening the skin, also for its astringent properties. Put the juice of a cucumber into a pint bottle, add two drams of eau de Cologne and six ounces of rose-water, shake well, and add drop by drop two drams tincture of benzoin. Shake thoroughly. This preparation is delightful, and will give tone to the skin.

FRECKLES

Freckles are the result of too much iron in the blood; even a bleach powerful enough to remove the outer skin has in some cases no effect upon the freckles.

1. A good lotion for freckles is composed of a teaspoonful of ammonium chloride to four ounces of distilled water.

2. "An English girl who wishes to be rid of freckles dips her finger in water, then in finely powdered niter (saltpeter), and touches with it each freckle. The process has to be repeated every night for a week, then the spots vanish."

3. For freckles and moth patches, dissolve three grains of borax in three ounces of orange-flower water.

4. Freckles that prove obdurate will often disappear under the daily application of a drop of lemon juice to each freckle. Apply by touching each spot with a fine camel's hair brush dipped in the juice.

WRINKLES

Wrinkles may be removed by proper massaging, or by the will power, if caused by worry, or intense thinking.

The lines and wrinkles on the face should be massaged nightly, if permanent good would be done; where the massage is given one night and forgotten or neglected for a week, the lines are given an opportunity to return and

An infringement of the laws that govern our physical being is sure to be followed sooner or later by punishment.

deepen. Constant care and vigilance are the price one must pay to keep away wrinkles, unless the habit is early formed of keeping the muscles of the face in repose. Massage should always be across the line of conformation. An excess of anxiety concerning wrinkles may develop more.

BLACKHEADS AND ENLARGED PORES

1. For blackheads or enlarged pores at the sides of the nose, it is a good plan once or twice a week, after washing the face with hot water and soap at night, to press out the contents of the engorged pores. This may be done by pressing between the finger nails, or by the use of a watch key, pressing the hollow end down carefully over the blackhead. Rub soap lather on the spots, and let it remain overnight. This is an effective remedy for reducing the size of the pores.

2. "To remove blackheads, and also to soften the skin before applying cold creams and lotions, wring a soft linen towel out of moderately hot water. Do not have the towel hot enough to burn the skin. Apply to the face, pressing down into the curves of the eyes, nose, and mouth. Repeat several times until the skin is pink and soft. In this condition it will absorb much more of the oils and lotions, greatly increasing their effective properties."

3. Enlarged pores on the face yield quicker to an astringent application than to cold cream. The reason for this is that the astringent helps to close the pores, while the creams in a measure, by filling them, keep them open. A little diluted alcohol applied after a thorough washing will in time completely close the pores.

4. As a good astringent for enlarged pores, take four ounces of distilled witch-hazel and one dram of boric acid. Spirits of camphor will often prove helpful in closing the pores.

A knowledge of the laws of life is necessary in order to avoid disease.

SKIN ERUPTIONS

A healing ointment for skin eruptions is made by mixing thoroughly one part of bismuth with three parts of white vaseline.

A few drops of carbolic acid added to the wash water will heal skin eruptions. The odor is unpleasant at first, but soon evaporates.

For sore lips, use white vaseline that has one or two drops of attar of roses mixed with it.

CLEANSING THE SKIN

"Many otherwise good skins are kept in poor condition by using hard water; this is not necessary, as a solution of borax will soften the water. Fill a bottle with warm water, add a teaspoonful of borax at a time until the water absorbs all it can in solution. Keep the bottle on the toilet table and add to the wash water."

Select unscented soap that has little alkali and no coloring in it. Such soap will not harm the most delicate skin.

Soap does not agree with fine, dry skins, the alkali in the soap taking away the natural oil. In such cases take a little almond meal in the hand and use the same as soap.

Pure almond-oil will not hurt the most delicate skin.

One dram of tincture of benzoin to four ounces of rose water is the right proportion for making a delightful, milky preparation for the skin. The benzoin should be added a few drops at a time to avoid curdling. If more benzoin is added than the above given proportion, curdling is liable to result.

Equal parts of bay rum and glycerine is an excellent lotion for the face after shaving.

Wetting the hair occasionally with a solution of salt and water may prevent it from falling out.

COLD CREAM

An excellent cold cream is quickly and easily made by the following recipe:—

Two and one-half ounces of spermaceti, two and one-half ounces of sweet almond-oil, one-fourth ounce white wax. Melt together and after removing from the fire, add one and a half ounces of rose-water. Beat until it creams.

CARE OF THE HAIR

It is a well-known fact that in the case of animals, the hair immediately shows the effects of ill health. If the hair begins to fall out, the first step in its restoration is to improve the general health. Plenty of out-of-door exercise, frequent bathing, shampooing, and airing the hair, keeping the scalp free from dandruff, and proper diet—all have a great influence upon its healthiness and beauty. No exact rule can be given as to how frequently the hair should be washed. To say the least, it should be often enough to keep the scalp clean. If one is exposed to much dust, or lives in a district where soft coal is burned, the hair will need shampooing much oftener than if living among clean surroundings. No specific rule can be laid down. Each one must use his best judgment; but it is always better to err, if at all, on the side of cleanliness.

After shampooing the hair, it should be carefully dried with a soft towel. If it can be exposed to the sun when drying, there will be an added gloss to it that can not be obtained in any other way.

Massaging the scalp during the process of drying, is beneficial, as it increases the circulation of the blood, and makes the scalp healthy.

For cleansing the hair, nothing is better than a solution of borax water. Wash afterward with pure water, if it leaves the hair too stiff.

The hoary head is a crown of glory, if it be found in the way of righteousness.—Bible

HARMFUL LOTIONS

Be very careful about using lotions on the hair, for the majority of them are injurious. If the hair is inclined to be dry, a little fresh oil, well rubbed in, will be beneficial.

Hot curling-irons should never be used on the hair. If you must curl it, use kid curlers, or roll it upon itself, which will curl it nicely without injury.

GRAY HAIR

A celebrated physician once said that the best thing to do when the hair turns gray is to admire it. The good Book says, "The hoary head is a crown of glory, if it be found in the way of righteousness." Never use dyes, for they are injurious, and some are poisonous. If your hair begins to turn gray prematurely, give it special care, stop worrying, and try in every way to improve the general health. This program will be a physical blessing, whether wholly effectual or not.

BALDNESS

When the hair begins to fall out, do not use quack remedies of any kind. Avoid hard or unventilated hats. Hard hats shut off the currents of blood, and the hair dies and falls out from lack of nourishment. Keep the hair cut short, and wear a hat only when really necessary.

CLEANLINESS AND VENTILATION

Before retiring for the night, the hair should be brushed and thoroughly aired. Dip the fingers in cold water and rub the scalp briskly. Thorough ventilation, by allowing the fresh air to blow through it every day for a brief time, and cleanliness are necessary to the health of the hair. Massaging the scalp tends to draw the blood to it, and it is thereby nourished. To keep the hair in good condition

Falling hair is usually the result of loss of vitality, restricted circulation, or neglect.

depends not only upon the good care given to it, but also on the condition of the general health.

It is a good thing to let the hair hang down the back occasionally, so that it may get a good sunning and airing.

The hair should naturally be oily and glossy; where the opposite is the case, scalp massage should be given to stimulate the roots and encourage the flow of natural oil; olive-oil should also be rubbed into the roots until the natural oil is restored.

SHAMPOO

The egg shampoo is the best for cleansing and softening. To properly prepare the shampoo, break the yolk of an egg in a pint cup (two yolks if the hair is very long and heavy), fill the cup with warm water, and beat until the egg is mixed thoroughly. Have ready a basin of warm water, add a teaspoonful of borax, rub the egg mixture on the hair and scalp, and wash thoroughly in the borax water; rinse in two waters. The hair will be left soft and silky.

The hair should not be shampooed oftener than once in two or three weeks, unless exposed to much dust, as too frequent washing removes the oil and gloss, and leaves it dry and unmanageable.

Use a good soap. Tar soap is excellent for this purpose. A few drops of ammonia, a teaspoonful of borax, or bicarbonate of soda may be used in the water. If too much ammonia is used, it is likely to dry and split the hair. After the scalp and hair are thoroughly washed, rinse in several waters, or until the last rinsing water is clear.

"When one has not the conveniences for a regular shampoo, the hair and scalp may be cleaned quite as thoroughly by a dry salt rub. Loosen the hair, rub the scalp vigorously with salt, then brush thoroughly. This is not only cleansing, but acts as a tonic as well."

Building up the general health and vitality will do more to save the hair from falling than all cosmetics.

DRYING THE HAIR

Dry the hair by rubbing with warm towels, followed by a good dry massage with the finger tips, till the whole head is aglow. By this procedure, the requisites of beauty and health—cleanliness and vigorous circulation—have been fulfilled. Whenever possible, the hair should be dried in the sun. A sun bath brings out its glinting lights as nothing else can. The polish of the hair, if we may call it so, is more essential to its beauty than either its texture or color.

When sunshine is not available, fanning is a good substitute for drying the hair. If the air is warm, the process will be much shorter. The locks should be shaken from time to time during the drying. It is well in the case of long hair, to braid it very loosely before washing, as then it will not be so likely to tangle. Instead of the water bath, a sun bath alone will make the hair fresh and sweet, and, together with brushing, does much to keep it in good order. After a shampoo, especially if the hair is naturally dry, it is a good plan to have rubbed into the scalp—for it is very difficult to do it properly one's self—a little bland oil, such as almond oil, oil of benne, or a little vaseline. But whatever you use must be sweet and not rancid. Any one of these oils will help to nourish the hair and offset any possible unhappy results of the shampoo.

BRUSHES AND COMBS

The best brushes are those that have a good quality of bristles, but are not too stiff. Wire brushes should be avoided, for unless carefully used, they do much injury to the hair, sometimes pulling strands of it out by the roots. Combs should be rather coarse, with smooth, round teeth. If the teeth are too sharp and angular, they are liable to break the hair and injure the scalp. It is not a good

Beware of bleaches and colorings. Use only nature's remedies to restore the hair.

practice to scratch the scalp with a fine comb. Treat the hair gently and carefully when combing or brushing. If it is tangled, begin at the ends of the hair,—never at the roots,—combing very carefully, and by a little gentle persistence, the most obstinate snarl will soon be conquered.

If, through severe illness or inattention, the hair has become matted, saturate the tangled locks with alcohol, and they will clear out as if by magic. A comb dipped in kerosene oil is also excellent for cleaning the hair, and for straightening tangles. The odor soon disappears.

MISCELLANEOUS SUGGESTIONS

Beware of bleaches and coloring matters that are guaranteed to restore hair to its original color. The presence of sulphur in almost all of these bleaches causes the hair to turn an ugly yellow. Do not try to improve upon nature. Use only nature's remedies, food, air, water, and exercise.

Cleanliness, ventilation, and friction with a good brush or the finger tips, are the essential needs of the hair. See that the hair is shampooed regularly and kept perfectly clean; this will relieve much of the tendency to accumulate dandruff.

Do not use salts of tartar on dark hair. Its use will brighten light hair and make it fluffy. Where light hair is very oily, the juice of a lemon may be added to the shampoo water.

The daily use of the curling-iron will often cause the hair to become harsh and broken. This is caused by the heat taking away the natural oil. See that the iron is only moderately hot or abandon its use altogether.

Hair that splits at the ends needs a good tonic, and should be clipped every month; the clipping will do little good without the tonic.

Our happiness in a great measure depends upon good health.

A good hair tonic may be made as follows: One pint of water, one tablespoonful fine table salt, one dram sulphate of quinine. Shake well together and apply to the scalp night and morning.

The use of too much borax and soda tends to make the hair harsh and broken. When such results follow, abandon the use of the soda, apply a good tonic, and rub the roots nightly with white vaseline or olive-oil.

Vaseline will darken and increase the growth of the eyelashes and eyebrows. It should be heated a little and applied with a small camel's hair brush.

Lemon juice will remove dandruff, and is good for the scalp.

CARE OF THE HANDS

An excellent lotion for the hands is made of equal parts of bay rum, witch-hazel, rose-water, and glycerine. Apply at night before retiring, and it will keep the hands soft and prevent chapping.

Here is a hand lotion which many housekeepers have found of benefit: Take one-half pint of bay rum, two ounces of glycerine, and the strained juice of two large lemons. Mix and bottle. Use after washing dishes, and upon retiring, and soft, white hands will result, with immunity from raw, rough, and chapped ones.

If you would keep the hands in good condition, do not put them into very hot water; it cooks the skin, and does it serious injury.

To keep the hands from perspiring on the hottest day, bathe them in strong alum water. This is often of convenience when doing fancy or other particular work.

Never cut the cuticle surrounding the nail; press back daily, and the flesh will stay in place, showing the pretty white moons.

We are more often judged by little things in our personal appearance than by great doings.

Lemon juice and raw tomatoes will remove stains from the fingers.

Diluted alcohol applied daily will prove beneficial in excessive perspiration.

Filing the nails to keep them the right shape and length is better than cutting. The palm of the hand is the best nail polisher; the chamois nail buffer comes next, and should be used when a polishing powder is applied to the nails.

Ink-stained fingers can be speedily cleaned by slightly dampening the fingers and rubbing the stain with the sulphur end of matches. Take two or three matches and rub the dampened stain, then rinse with clear water. Public speakers find this useful. Clean hands, both literally and figuratively speaking, are good recommendations.

Stains on the fingers that will not yield to ordinary methods can be removed by dipping the fingers in peroxide of hydrogen.

For calloused places on the hands or feet, rub first with cold cream or vaseline and then with the toilet pumice; the hard places will soon disappear. Cutting away the hard skin only makes the places harder and the edges uneven.

MEDICATED, OR SULPHUR AND TAR SOAPS

So much is being said about the virtue of sulphur soaps for skin diseases, and also for ordinary toilet purposes, that it will be a satisfaction to many people to know that they can easily make their own. Take a one-pound bar of any good, hard, white soap, cut it fine, and put it into a small jar; place that in a basin or pan of water and set it on the stove till the soap is melted; then stir in, thoroughly, one ounce of the flour of sulphur, and pour into a wooden or paper box; when cool, cut it into

Painstaking in little things, instead of neglect and vices, should form our habits.

squares and dry it, and your sulphur soap will be as good as you can buy.

"For the tar soap, do the same as above, except to stir in one-fourth ounce of creosote, which is the same in action as tar—containing the active principle of tar. No harm in combining them in one soap; the combination would work very mildly on any irritable skin."—*Chase*

A GOOD HABIT

Many housekeepers see bits of poetry and prose which they would like to memorize, but where is the time in which to learn them? For years I have learned bits of this sort, and anything else I wish to commit, by fastening them on my mirror. At night when preparing for bed, and at times when I comb my hair or dress during the day, my eyes, lighting on the lines, communicate them to my brain, and I have learned them almost unconsciously. I formed this habit when a schoolgirl.—*Scrap-book*

Since I have grown to be a man I have known some people whose lives were so fragrant with health and happiness and kindness that everybody who came near them felt, even without seeing it, the sweet, refreshing influence that went out from them.—*Rossiter*

O blessed health! thou art above all gold and treasure. He who has thee has but little more to wish for; and he who is so wretched as to want thee, wants everything with thee.—*Sterne*

"Health is simply nature's music,
Sweet diapason without flaw,
Chorus of happiness eternal,
Full harmony of life with law."



EVILS OF FASHIONABLE DRESS

The evils of fashionable dress are so numerous and so exceedingly detrimental to health, that a few brief, practical suggestions on this subject will not be out of place among these household themes. Reference will be made chiefly to women's clothing, as custom has decreed that the clothing of men shall very largely conform to the laws of health; but it is a notable fact, recognized by physicians and all other intelligent people, that in civilized countries custom demands that the dress of women shall torture, deform, and weaken them, quite to the limit of physical endurance. It is one of the anomalies of civilization that the higher a nation rises in the scale, the more taxing the laws of custom are upon the health of women.

We should congratulate ourselves, however, that the subject of healthful dress is receiving more consideration during recent years, and the good work being done by many splendid journals and health societies is making its impression upon the women who have been bound by these foolish customs to the worst kind of slavery.

From an article on this subject in *Beauty and Health*, we quote the following:—

"Very few civilized women know how to breathe. It is impossible for one to dress in the conventional manner and breathe properly. There must be no restriction at the waist line, if the breath is to be drawn to the lowest part of the lungs, and the air-cells in that part of the lungs are just as important, and are as capable of purifying the blood, as any other part.

"A small waist may be a 'thing of beauty' in the eyes

"Half the diseases of women are caused by unhealthful dress."

of the ignorant; but no man who knows anything of physical culture, who realizes what is essential in a wife and in a mother, can ever admire a small, delicate waist. It is always a sign of weakness. It indicates incapacity for perfect wifehood and motherhood. It shows a want of womanly instincts. It is not possible to have a small waist and be perfectly developed in every organ and function of the body. There are always some deficiencies under circumstances of this nature. Imagine, if you can, the importance of complete lung development. The lungs purify the blood. They fill that vastly important liquid with certain elements that are essential to the life and health and strength of every organ, muscle, and nerve of the body. If the lungs are only partially developed, it is impossible for a woman to attain her full strength, either mentally or physically."

THE OBJECT OF CLOTHING

There are two principal reasons that may be given for wearing clothing: First, because modesty and custom require it; and, second, because in most countries it is required as a protection against the extremes of heat and cold. If these two points could be kept constantly in mind, many of the evils of fashionable dress might be avoided.

FUNDAMENTAL PRINCIPLES

The following are among the most important essentials in clothing the body in conformity to the laws of health, comfort, and modesty:—

1. From the standpoint of beauty and modesty, that style of dress is best which is never particularly noticed, nor commented upon, either favorably or adversely.

2. It should protect the body from the cold—particularly the extremities.

Simplicity of dress will make a sensible woman appear to the best advantage.—Mrs. E. G. White

3. It should allow perfect freedom of all the organs of the body, and the unrestricted circulation of the blood.

4. It should be light and warm, and should be supported chiefly from the shoulders, so as to be carried with the least effort and restriction.

5. The length of the skirt should be such that it will not touch the floor nor sweep the street when walking.

FASHIONABLE DRESS

The absurdities and painful effects of fashionable dress are very evident. The many evils which result from the mad rush of women after the latest instruments of torture in the shape of dress are attracting the world-wide attention of intelligent people, and are leading to some very necessary reforms. The advantages of healthful dress are being advocated by the best physicians and scientists, and many of the best schools and journals are teaching the better way. Some of our lingering marks of barbarism are vanishing before the bright shining of truth. Earrings and bracelets are no longer worn except by the most ignorant, and by savages; the back-breaking bustle has gone with the dust-sweeping, trailing skirt; and tight shoes and corsets should be the next to go.

TIGHT CLOTHING

A woman's clothing should be worn loosely enough to enable her to breathe easily and deeply by a free expansion of the muscles of the abdomen. In days of denser ignorance, not many years ago, it was believed by scientific men that woman's apparatus for breathing was different from man's. The almost universal habit of restricting the waist had compelled women to breathe by the expansion of the upper part of the chest, until it was believed that this was their natural respiration, quite different from the ab-

We are more sensible of what is done against custom than against nature.—Plutarch

dominal breathing of man; but it is now a well-known fact that women naturally breathe the same as men, and suffer quite as seriously as a man would from any restrictions about the waist. It is perhaps safe to say that fully three-fourths of all female weaknesses and diseases are the direct result of these restrictions.

"For the last eighteen hundred years," says Dr. Oswald, "the females of our species have been barred from the privileges of physical culture. The girls of some fifty generations have been physically atrophied, dollified, cribbed, hampered, and confined, till in many millions the capacity and almost the very love for bodily vigor have been permanently eliminated."

IS A SMALL WAIST BEAUTIFUL

"Let us cease this war of words against corsets," says Charles Wesley Emerson, in *Physical Culture*, "for when true physical culture has developed the bust, and given the corresponding waist line, the instinctive desire for beauty will cause all to turn away from the false method to the true, and corsets and all like inquisitorial machines of torture will take their places in the museum of antiquities, beside the rack and thumbscrews of the Spanish Inquisition; the one showing the sacrifice and suffering of humanity consequent upon its search for pure religion; the other, what it endured in its desire to attain beauty. Superstition dies a natural death when true religion comes, and perverted fancy expires in the light of natural beauty."

Doctor A. B. Olson, of London, England, in "The School of Health," says:—

"Some women are naturally slender and willowy, and in such persons a reasonably small waist may, if left to develop on natural lines, be attractive; but if an effort be made to reduce it to still smaller dimensions, the effect as

Turn away from the fashion plates, and study the human organism.—" Christian Temperance "

an artistic whole is spoiled. A person of naturally more robust proportions can not by any possible process of lacing make herself one whit more slender than she really is; the effect is simply to proclaim to all discerning people that she is unsatisfied with the proportions naturally belonging to her, and has tried her best to alter things to suit herself, but has miserably failed in the attempt. No, corsets do not deceive any one except the wearer, who may possibly think because she has worked so hard to cheat her abdominal organs of a few inches, that she has accomplished wonders in the great art of figure-making; but the effect to one who has a true sense of beauty and proportion is utterly disgusting.

"Freedom of movement is one of the first essentials to a truly beautiful woman, as all great poets and artists declare."

HARMFUL RESULTS FROM TIGHT CLOTHING

The following are some of the harmful results from restrictions of the body:—

1. Lacing causes displacements of the vital organs. The lungs are pressed together until the lower lobes, which are largest, and of most service, are rendered almost useless; the liver is sometimes nearly cut in two; and the stomach and bowels are weakened and pressed down, causing deformity and suffering.

2. Tight clothing presses upon the veins and arteries, thus preventing them from carrying off waste matter, and from building up the system; this weakens the body, causing lassitude and depression

3. A compression of the waist is one of the most fruitful causes of indigestion. The stomach is so restricted and crowded out of its place that it can not perform its natural function.

"We judge a person's character by the style of dress worn. A modest woman will dress modestly."

4. Tight shoes are the most common cause of corns, bunions, chilblains, ingrowing toe-nails, and otherwise deformed feet, with all their aches and pains.

5. Garters or other restrictions around the legs or arms cut off the circulation, making the extremities cold and weak.

6. When muscles act, they swell out in thickness. It is therefore evident that all restrictions prevent the development of the muscles, and weaken the body. This is specially true of such serious restrictions as lacing.

7. Much of the pain and danger of child-bearing are the direct result of wearing corsets or tight waists, and of supporting the skirts from the hips.

HOW TO SUPPORT THE CLOTHING

"The hips are not formed to bear heavy weights. The heavy skirts worn by women, their weight dragging down upon the hips, have been the cause of various diseases which are not easily cured, because the sufferers seem to be ignorant of the cause which has produced them, and they continue to violate the laws of their being by girding the waist and wearing heavy skirts, until they are made life-long invalids."

The custom of wearing such a large number of heavy skirts is altogether pernicious; and it is all the more serious because it is most largely practised by slender women, who attempt in this way to supply a roundness of figure which nature has denied them. This is the wrong way of getting at the difficulty; such women may, perchance, by dropping their wrong habits, build up the system, and secure at the same time both health and good form.

All the clothing of the body should be supported from the shoulders by waists, or suspenders, or both. By these means of support all the clothing can be lifted freely by

I hold that gentleman to be the best dressed whose dress no one observes.—Trollope

raising the shoulders, and the organs of the body are enabled to keep their proper places, and fulfil their functions, and the body naturally becomes strong and graceful.

Stockings, instead of being supported by circular bands, should be supported from the shoulders or from the waist, by side elastics.

Men should always wear their pantaloons loose about the waist, and supported by suspenders from the shoulders. The custom of wearing the trousers buttoned tightly about the waist, or of supporting them by a strap around the body, is a fruitful cause of kidney troubles, weak back, lumbago, and other diseases of a painful nature.

PROPER DISTRIBUTION OF CLOTHING

As already stated, the most important reason for wearing clothing is to protect the body from extremes of heat and cold; but popular fashions have, to a large degree, ignored the demands of life and health, and have cut the styles of women's clothing in harmony with depraved ideas of the artistic. Either the shoulders and chest are covered heavily with shawls, cloaks, or furs, while the extremities are only slightly protected from the cold, sweeping blasts; or the other extreme is adopted of having the shoulders and chest nearly or entirely exposed, thus endangering the health and doing violence to the best laws of taste and modesty.

While the body should be clothed comfortably, there is no reason why a large number of coverings should be provided for the chest and abdomen. In most cases less clothing should be provided for the body, and more for the extremities. By making the upper and lower garments in two pieces so they lap at the waist, sometimes from eight to a dozen thicknesses are worn about the body where least needed.

"Our words, our actions, and our dress are daily, living preachers."

CLOTHING THE EXTREMITIES

The importance of clothing the extremities can not be overestimated. "The limbs and feet have large arteries, to receive a large amount of blood, that warmth, nutrition, elasticity, and strength may be imparted to them." But when the extremities are poorly clad, and exposed to the cold, these arteries are contracted and the natural flow of blood is cut off. With every pulsation of the heart, the blood should be sent quickly and easily on its natural way to all parts of the body; when the cold prevents it from circulating through the limbs, an extra quantity of blood is supplied to the delicate organs of the head and chest, causing headache, nosebleed, a sense of fulness in the head and chest, congestion of the lungs, coughs, and palpitation of the heart. Disease is produced in the delicate organs of the body by an oversupply of blood, while the extremities are weakened by the loss of the life-giving fluid.

WELL-CLAD FEET

The necessity of clothing the feet properly is of such great importance as to require separate consideration. This is one of the most vital essentials to good health, especially in cold, wet weather. Shoes should be of the proper size, thick-soled, and warm,—made for comfort rather than for show. Tight shoes force back the blood, cripple the feet, and cause intense suffering. Thin shoes are insufficient protection in cold, wet weather; thin soles can not be too vigorously condemned; they admit the cold and dampness, and tire the feet. Thin soles are an especial evil in many styles of American shoes. The heavy soles, such as are worn in all European countries, are far better. Probably the fact is not overstated, if we assert that more than one-half the colds taken are from exposures of the feet.

Many for the sake of finery have gone with empty stomachs, and have half starved their families.

In wet weather, rubbers or overshoes should be worn; and in snowy or windy weather, the feet and ankles should be protected by overshoes and gaiters that reach nearly to the knees.

Great care should be taken not to wear skirts that are drabbled and wet; if allowed to strike against the ankles, they are likely to cause severe colds and pneumonia.

HIGH COLLARS

"High collars, besides interfering with the proper poise of the head and the lines of the neck, are harmful from a health point of view. The neck muscles are strained, and, incidentally, the cords of the neck and shoulders. If too high in front, they impede the circulation, and are said to account for much of the impaired eyesight now so prevalent. Tight collars often cause headache."

LENGTH OF DRESS

"She will not let him in the house
Until he wipes his feet;
Then out she sails with trailing gown,
And wipes up all the street."

"The length of the fashionable dress is objectionable for several reasons:—

"1. It is extravagant and unnecessary to have a dress of such length that it will sweep the sidewalk and street.

"2. A dress thus long gathers dew from the grass and mud from the streets, and is therefore uncleanly.

"3. In its bedraggled condition it comes in contact with the sensitive ankles, which are not sufficiently protected, quickly chilling them, and thus endangering health and life. This is one of the greatest causes of catarrh and scrofulous swellings.

"Silks and satins, scarlets and velvets, put out the kitchen fire," as Poor Richard says.—Benjamin Franklin.

"4. The unnecessary length is an additional weight upon the hips and bowels.

"5. It hinders the walking, and is also often in other people's way."

THE SONG OF THE SKIRT

"Sweep, sweep, sweep,
With trailing skirt, O maid,
Through the filthy flood and slush and mud,
Till thy dress is tattered and frayed.

"What matters though men may smile,
And street cleaners stop their work;
When fashion's decree says a thing must be,
No woman will dare to shirk.

"So sweep, sweep, sweep,
Gather microbe and mud and dirt,
For style and wealth beat comfort and health,
And that is the song of the skirt."

CHANGE OF CLOTHING

All the clothing of the body should be kept well aired, clean, and dry. The necessity of a frequent change of clothing depends largely upon the climate and the nature of one's employment. As the skin, in the fulfilment of its natural function, is continually throwing off impurities and waste matters from the body, the clothing collects these impurities, and unless it is frequently changed, these poisons are absorbed and taken back into the blood.

The garments worn during the day should always be removed at night, and fresh, loose, comfortable night-clothes substituted.

Careful attention should be given to changing and adjusting the clothing so as to provide against all the emergencies and sudden changes of the weather. In some localities, the difference in temperature between the day

The fashion wears out more apparel than the man.
—Shakespeare

and the night is so great as to make it necessary to give constant attention to one's clothing.

When taking journeys, either long or short, it is wise to make ample provision against all possible changes.

Clothing that has become wet or damp from rain or even from perspiration, should be changed as soon as possible. Great injury may be received by sitting a few hours, or sometimes even a few minutes, in wet, or even damp clothing, and particularly with wet, cold feet.

THE MICROBE'S LAMENT

Fashion has decreed that skirts shall be worn short in future.—*Ladies' News Item*

"A microbe sat in the busy street;
A wretched wee mite was he;
And the tears in floods from his woeful eyes
Poured silent and frequentlee.
'Alas and alack! I am doomed!' he cried,
In a voice that was filled with pain.
'On the trailing skirt I may ride no more—
And my soul is the shrine of pain.

" 'My heart turns back to the good old days
When over the slushy street,
The soggy skirt went dragging by
In the wake of the twinkling feet;
Oh, good old days, you are gone for aye!
And I sobbingly shriek and sigh;
For the skirt that once dragged in the filth and mud,
Now travels three inches high!' "

CHINESE PHILOSOPHY

Wu's mother, being an aristocratic Chinese woman, has feet so small that she is compelled to go about in a wheel-chair. When asked by a little girl if he did not think it cruel that the Chinese ladies' feet should be tortured in this way, Wu replied, "It is not more cruel than for Amer-

Those who make dress a principal part of themselves, will, in general, become of no more value than their dress.

ican ladies to torture their waists in steel corsets until their noses are beet red and their shapes like an hour-glass."

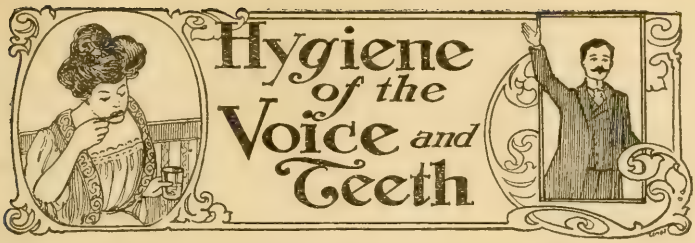
STYLISH DEFORMITY

"This is the shape of a woman's waist on which a corset tight is laced. The ribs, deformed by being squeezed, press on the lungs till they're diseased. The heart is jammed and can not pump; the liver is a tor- pid lump; the stomach, crushed, can not digest, and in a mess are all compressed. Therefore this silly woman grows to be a fearful mass of woes; but thinks she has a lovely shape, though hideous as a crippled ape."

HEALTH AND BEAUTY

"This is a woman's natural waist, which corset tight has not disgraced. Inside it is a mine of health. Outside of charms it has a wealth. It is a thing of beauty true, and a sweet joy forever new. It needs no artful padding vile, or bustle big to give it 'style.' It's strong and solid, plump and sound, and shows a mind that's 'all around.' Alas! if women only knew the mischief that tight corsets do, they'd let Dame Nature have her ease, and never try her waist to squeeze."

"And why are ye anxious concerning raiment? Consider the lilies of the field, how they grow; they toil not, neither do they spin: yet I say unto you, that even Solomon in all his glory was not arrayed like one of these."



THE VOICE

Ignorance of the correct manner of using the throat and lungs in reading, speaking, and singing is the most fruitful cause of bronchitis and pulmonary consumption among students, vocalists, and public speakers.

The care of the voice is of such great importance that the child should receive early training in regard to the right way of breathing, and the correct methods of speaking, reading, and singing. Pure, full, natural tones should be cultivated.

If proper attention is given to this line of instruction, by parents and teachers, children will grow up comparatively free from a disagreeable manner of reading and speaking, which is so hard to overcome, and is so detrimental to life and health.

The vocal organs are strengthened if rightly used, but they should never be overstrained. Practise proper articulation, and loud talking will be unnecessary. Speaking in a loud, high key is not only injurious to the speaker, but is disagreeable to those who are compelled to listen. "The voice should be cultivated so as to promote its musical qualities, that they may fall pleasantly upon the ear and impress the heart."

Prof. Robert Kidd, A. M., instructor of elocution in Princeton Theological Seminary, says: "Pure tone is expressed with less expenditure of breath than any other quality of voice; it is smooth, resonant, and agreeable, and entirely free from any aspirated, guttural, or other impure quality of sound.

"The most severe and sustained exercise of the voice,

A person with a sweet voice always seems beautiful though possessing ugly features.—Emerson

in pure tone, if the voice be pitched aright, is not only unattended with any bad effect upon the lungs and throat, but, on the contrary, tends to strengthen and invigorate them, and fortifies the whole system against the invasion of disease.

"To command a full, resonant, and pure tone of voice, these conditions are indispensable:—

"1. A full and copious breathing.

"2. A free and natural action of the abdominal muscles, in the inhalation and expulsion of the breath.

"3. The muscles that regulate the action of the jaw must be relaxed.

"4. The throat and the mouth must be kept well open so as to give free course to the sound."

EXERCISE OF THE VOICE

"Exercise is a powerful factor in the development of the voice. It should be taken in the open air. Children, like caged birds, lose their song when kept constantly indoors. Exercise is born of the free fields and pastoral hills. A loud shout means a long breath; a rapid pace, many deep ones. Thus are the receptacles of the great aerial storehouse opened, enabling us to keep on tap that which is the very essence of speech, without which no sound can be sustained.

"It is a fact that people reared in the country have clearer and ampler voices than those city bred. The voices of southern nations possess invariably more music and more volume than those of northern tribes. A warm climate stimulates to an outdoor life and deep breathing, and many vocations that in colder climes are carried on indoors, are performed outside. Mountaineers have louder voices than the inhabitants of the prairies, because of the respira-

The use of alcohol or tobacco frequently causes loss of voice.

tory development incident to hill climbing. The lesson from this is obvious. The 'breath of life' is the one truth in everybody's mouth. It is the great proverb that knows no denial. In her generosity of this vital fluid, nature would give us good measure, pressed down, and running over. Yet how many of the pancake chests that drag the streets like collapsed bellows, know the swell and heave of unencumbered air, the sufficingness of an honest breath? Nothing can supplant nature's developmental gymnastics; but in those unfortunate cases where the conditions of life necessitate confinement, much may be done to expand the chest, and increase cell function and volume of voice, through artificial breathing exercises."—*Fayette C. Ewing, M. D., in the Dietetic and Hygienic Gazette*

CARE OF THE VOICE

The physical health will be much benefited by a proper use of the vocal organs.

The rapid manner, and the high, unnatural key in which many speak, injure the throat and lungs, and, if continued, will naturally result in consumption. This failing is most noticeable in public speakers.

Improper breathing is an injury to the voice. Deep abdominal breathing, persistently persevered in, will improve it.

The voice may be greatly injured by public speaking in damp or poorly ventilated rooms.

The voice should be allowed to rest when the vocal cords are inflamed from a cold. It may be permanently injured by singing or loud speaking when suffering from hoarseness.

Condiments, tobacco, and alcoholic liquors inflame the throat, cause disease, and injure the voice.

To have a voice that is clear and fresh, eat plenty

Intelligent care of the teeth contributes much to our health, comfort, and personal appearance.

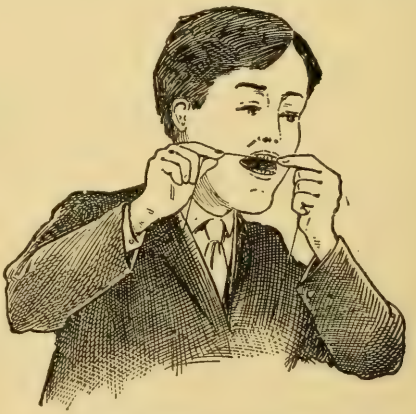
of fruit, take a cold sponge bath every morning, breathe fresh air, and sleep from eight to ten hours every night.—*Rossiter*



Brushing Up and Down

THE TEETH

The health of the entire body is dependent upon a proper care of the teeth. They were not given us merely to add to our beauty; they are an important factor in the process of digestion. If they have been neglected and are decayed, if they are sick and sore, they can not do their work. If the food passes into the stomach without having been properly masticated and mixed with the saliva, the digestive fluids are unable to do their work upon it; consequently it can not be assimilated, the body is not nourished as it should be, and sickness is the result.



Cleaning Between the Teeth

CLEANING THE TEETH

After each meal all particles of food should be removed from between the teeth. Simply brushing them to make them look white and clean on the outside is not enough. If the teeth set close together, special pains should be taken to

"Teeth require exercise. Hardtack is one of the best polishers and preservers."

see that there is nothing left between them, as it will ferment and form lactic acid, which dissolves the enamel. When using the brush, brush up and down, as well as crosswise, as this helps to remove all adhering particles. The teeth and mouth should be cleansed, thoroughly, before retiring, for during the sleeping hours germs have the longest time for doing their dangerous work.

EXERCISE YOUR TEETH

As it is work and exercise that strengthen the muscles of the body and make them healthy, so it is proper exercise of the teeth that keeps them in a healthy condition. If the dietary consists largely of soft, mushy foods, the teeth are deprived of their legitimate work, and in a little time they are sick and weak, and begin to decay. Dry, hard food, that requires thorough mastication, is necessary for their development and preservation.

Discretion should be used, however, in the kind of exercise. While it is good for them to grind the different kinds of nuts used as food, instead of resorting to nut-mills, the habit practised by some of cracking the shells with the teeth is liable to do much injury. If the enamel is once broken, the softer tooth structure is exposed to the work of germs, and decay begins quickly.

TOOTH PASTES AND POWDERS

Do not use powders containing grit, as this will scratch the enamel of the teeth and open the way for decay.

Many of the tooth pastes on the market contain acids which dissolve the enamel and cause disease of the gums.

A good and inexpensive tooth-powder may be made of equal parts of castile soap, precipitated chalk, and powdered orris-root.

Another excellent dentifrice may be made at home by

A thorough, scientific use of the tooth-brush will preserve the teeth, sweeten the breath, and promote health.

mixing together and passing through a hair sieve, two ounces precipitated chalk, one-half ounce myrrh, one-half ounce pulverized orris-root, and an ounce of borax.

A good toilet soap and powder should be used on the teeth at least once a day.

Do not use any tooth pastes that are not recommended by the best dentists.

DECAYED TEETH

The teeth should be examined by a dentist at least once in six months. As soon as the smallest cavity is discovered it should be filled.

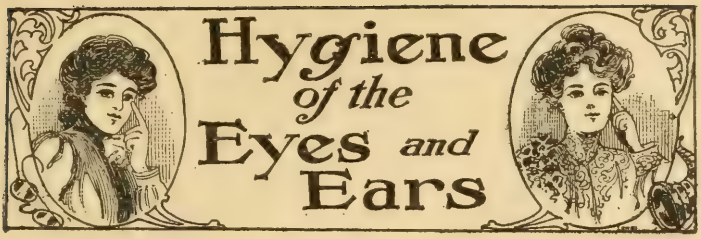
Never lose a tooth if it is possible to save it. It is a common saying, "Better lose a cow than a tooth." An eminent physician says that "we lose a year of life every time we part with a tooth."

If a tooth be so badly decayed and diseased that it can not be saved, have it extracted at once. If retained, it makes the mouth foul, and will cause the decay of teeth adjoining it. Disease of the stomach is often caused by decayed, ulcerating teeth.

TOOTHACHE

Toothache may often be relieved by the application of heat. This may be done by fomentations, hot-water bottles, or hot bricks.

If there is a cavity in the tooth, apply oil of cloves on a bit of absorbent cotton. Cocaine, creosote, or other similar drugs should never be used in the teeth.



THE EYES

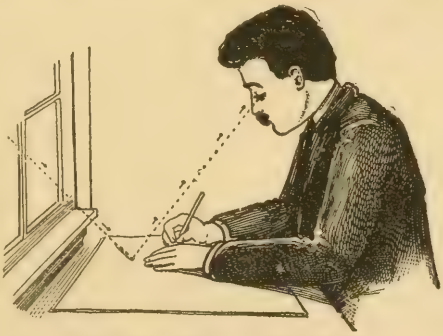
Great care should be taken of the eyes, as they are among the most delicate organs of the body. The deterioration of the human family is not more apparent anywhere than in the eyes. Twenty years ago it was a rare thing to see a little child or even a young person wearing glasses. It was considered a great misfortune. Now it is so common that it causes no comment, and is scarcely noticed.

A few important points in regard to the care of the eyes, kept in mind, will save much suffering and inconvenience.

1. Never use the eyes for close work, or reading when tired.

2. Do not strain the eyes to see when the light is dim or dazzling.

3. Never sit facing a bright light when working; the light should come over the left shoulder if possible, so as to give light at the point of the pen, and avoid direct reflection.



Facing the Light. A Bad Position

4. Squinting, rolling the eyes, or looking cross-eyed, is very injurious, as it affects the nerves and muscles which control them.

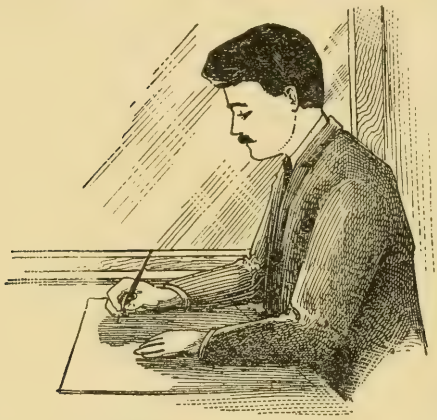
5. Do not look at the sun when it is shining brightly.

6. After a severe illness, the eyes are weak and should

In order to have bright eyes and good eyesight the entire body must be kept healthy.—Rossiter

be used very carefully. They should not be taxed with close work.

7. Do not try to read signs, or the news on bulletin-boards, when too far away.

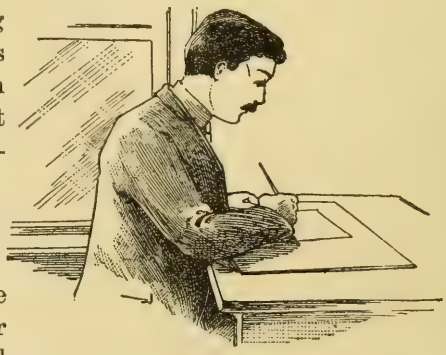


Writing in the Shadow

8. Have the glasses fitted to the eyes by a competent oculist when it becomes necessary. Never patronize quacks.

9. It is not good for the eyes to read while one is lying in bed. This habit is particularly injurious if practised at night, when weary, or in the morning before the eyes have become accustomed to the light.

10. Reading on the cars, or when riding in any conveyance, is exceedingly trying on the eyes on account of the constant jarring.



Correct Position

TO STRENGTHEN THE EYES

"Few people give proper care to their eyes until they find their sight beginning to fail. An excellent means of strengthening the eyes is

"You must not put into your ear anything smaller than your elbow."

to give them an occasional cold-water bath; not the ordinary sponge bath, with closed lids, but opening the eyes and holding them open for a minute or more in clear, cold water. To do this, take a teacupful of water and hold it close to the eyes, against the face, and open the eyelids into it. Open and shut two or three times to wash out the eye. Then dry with a soft towel."



Cold Bath for the Eye

Diluted witch-hazel is good for relieving inflammation of the eyes, especially when the inflammation is in the lids.

FOREIGN SUBSTANCES IN THE EYE

To remove dirt from the eye, close the lid and hold it down closely with the fingers. The irritation caused will produce a flow of tears, which will wash away the foreign substance.

Violent blowing of the nose, when the eyes are tightly closed, will often remove small particles from the eye.

The only use of eye-stones and flaxseed in removing foreign substances from the eye is that they cause a profuse flow of tears, and the dirt is thus washed out.

The pain caused by lime in the eye may be relieved by the application of an acid wash, such as diluted lemon, lime juice, or vinegar.

CARE OF THE EAR

The ear is another delicate organ of the body, which can not be misused or neglected with impunity. Diseases

There are other parts of the body to which physical punishment may be administered more safely than to the ears.

of the ear should be avoided, not only because of their being very painful, but also because they often result in permanent deafness, or in diseases of the skull or brain which sometimes prove fatal. The sense of hearing is such a precious gift, and the delicate organs of the ear are so closely connected with the brain, that they should be carefully protected against harm.

By careful observance of the following suggestions, much inconvenience and suffering may be avoided:—

1. Never allow anything cold to enter the ear. Before going in swimming or diving, plug up the ears with cotton. The cold wind should never be allowed to blow into the ears. When riding in a bleak, cold wind, the ears should be protected. If cotton is placed in the ear, it should be removed as soon as it is no longer needed.

2. Many people make a practice of removing the wax from the ear with a hairpin, ear-scoop, pin, or some instrument after the same order; this is very dangerous. The ear-drum is a delicate membrane, and there is danger of puncturing or injuring it with these sharp instruments, and deafness, or impaired hearing, is the result. Physicians tell us that when the ear is in a healthy condition, it is not necessary to remove the ear-wax, as it will, if left alone, become dry, and fall out in scales.

3. The habit of pulling or boxing the ears, as a means of punishment, is liable to cause permanent deafness.

4. Loud noises near the ear may impair the hearing. But if the mouth be closed, and the ears covered, such results may be avoided.

5. If there is a discharge from the ear, or if from a cold or from any other cause the hearing is temporarily impaired, a physician should be consulted. Neglect at such times may result in permanent deafness.



NO NEUTRAL GROUND

"If good we plant not, vice will fill the mind,
And weeds take up the space for flowers designed.
The human heart ne'er knows a state of rest:
Bad tends to worse, and better leads to best.
We either gain or lose; we sink or rise,
Nor rest our struggling nature till it dies;
Those very passions that our peace invade,
If rightly pointed, blessings may be made."

THE STRENGTH OF PURITY

A benediction ever rests upon purity. "Blessed are the pure in heart; for they shall see God." In purity there is a likeness to God. Pure words are strong words. Pure acts are mighty for good. Said Tennyson:—

"My strength is as the strength of ten,
Because my heart is pure."

Impurity in thought or deed in young or old saps the strength, and makes the child or man weak and vacillating. The most eloquent words are valueless when not backed by a pure, noble life; and great deeds are robbed of their glory if they are shadowed by a cloud of impurity and shame.

ITS RELATION TO THE HOME

In home-making, purity is one of the best building materials. It is soil in which a home can grow strong. It is the necessary accompaniment of love; for love can not maintain itself except it grows in purity. If the hearts of the household are pure, all other needs, adjustments, and arrangements come naturally, and can live;

Virtue alone raises us above hopes, fears, and chances.
—Seneca

but, on the other hand, if the home-makers are impure in their lives, or untrue in thought or act, all the blandishments and decorations of art are worthless shams.

THE MORAL CONDITION OF SOCIETY

The present outlook upon society is most forbidding. Never before in the history of mankind have the social sins of a fallen world stalked through the land so boldly, until their very frequency almost forbids a protest. "Evil men and seducers shall wax worse and worse," so says the Word of inspiration; and high above all other sins, towers the social uncleanliness of this degenerate age. Moral lepers and libertines covered with the good cloth of society, flaunt their sins shamelessly in the face of the society which they wrong, and are admitted to the drawing-room, and into the presence of ladies and gentlemen, who hardly protest against the insult. Indeed, it appears that the magnitude of a man's wrongs, if committed under the garb of wealth and influence, only increases his popularity.

The daily record of the police, civil, and divorce courts; the growing unfaithfulness of both men and women in their married relations; the rapid increase of divorces; the increasing popularity of brothels, until they are considered necessary public institutions for the protection of society; the shameful growth of illegitimacy; the increase of lust, and the decrease of the birth-rate; the long train of weak, aimless boys and girls, and men and women, whose secret sins are feeding on their beauty and vitality,—all these, with many other living, dying witnesses, give an appalling testimony of the world's increasing uncleanness. The stream of life runs dark and muddy, as, with its mighty, onrushing current, it gathers up all the mire of the past, ready for the last mighty plunge into the ocean

'Tis the stainless soul within
That outshines the fairest skin.—A. Hunt

of eternity. When the great Judge, "who inhabiteth eternity," shall give to all according to their dues, "blessed," indeed, will be "the pure in heart," for only such will see God in peace.

THE SEEDS OF IMPURITY

The seeds of impurity are small, but in a congenial soil they germinate quickly, grow rapidly, and bring forth a great and noxious harvest.

These seeds of impurity are destructive to home and health, and all lovers of purity and home should work unitedly and intelligently to uproot these evils, and, best of all, to prevent the seeds from germinating. Right here our efforts are most fruitful.

This is a many-sided subject. There are many points from which it may be viewed, and many lines of work which may bear fruit in the good cause; but the scope of this book will not admit of more than a brief study of some of the causes of all these malignant social evils.

SEEDS AND THEIR SOIL

Among the most fruitful seeds of social sins, and the soils most congenial to their growth, are the following:—

Idleness.

Evil thoughts.

Loose language.

Bad books.

Evil companions.

Rich food and condiments.

Ignorance of parents.

Loose courtships.

False standards.

Neglect of parents to teach children truths of importance concerning themselves.

Idleness is frequently the introduction to sensuality.
—Grove

Improper jokes and stories.
Improper clothing.
Familiarity of married people.

IDLENESS

An idle, aimless life is a worthless life. The demoralizing effects of indolence can not be estimated. Idleness is the breeding-place of vice and intemperance. "Rather do what is nothing to the purpose," says Quarles, "than to be idle, that the devil may find thee doing. The bird that sits is easily shot, when fliers escape the fowler. Idleness is the dead sea that swallows all the virtues." The sin of Sodom was "pride, fulness of bread, and abundance of idleness." Exercise and industry are necessary both to physical and moral growth. "The idle mind is the devil's workshop," and he never neglects an opportunity for doing his nefarious work.

EVIL THOUGHTS

One of the besetting evils of the present day is the indulgence in trifling, useless, vain, and volatile thoughts. Books of travel inform us that in hotter climates the locusts swarm so thickly in the air as sometimes to hide from the traveler the light of the sun, and cast a dark and cold shadow on his pathway. So it is in the world of mind. Swarms of vain thoughts are ever floating over some minds, intercepting the beams of truth from falling on the heart, and thus keeping that heart barren of all virtue and goodness. Or, like a set of evil birds falling on the newly sown field, these winged wanderers of thought fall on the heart, and pick up many a precious seed sown by the hand of the great Husbandman, and which, otherwise, would have brought forth much fruit. If we would avoid the evil, we must, like the farmer, set

The effect, or the influence, of thoughts may be imagined, but never calculated.—Dr. Hewlett

up something to scare these flitting spirits away. Nothing can do this so effectually as the presence of nobler and better thoughts.—*R. Roberts*

PREVENTION OF EVIL THOUGHTS

The only way to debar evil thoughts from the mind is to keep it constantly filled with that which is good and pure. Leave a house desolate, and it soon accumulates dust, cobwebs, and vermin, and if left long in this condition it becomes dilapidated and falls into ruin. So an empty mind is soon filled with the whisperings of Satan. If the heart is not fully set to do right, in an unguarded moment it is easily influenced toward the haunts of sin.

The mind of the child is bright and active, ever reaching out after the unknown, grasping with eagerness whatever may chance to be poured into it. Fill it to overflowing with that which is pure and ennobling, and there will be no room for the vile and degrading.

LOOSE LANGUAGE

Loose language is the expression of impure thoughts. "Our words are weather-vanes; for they show which way the winds of the soul are blowing." The virtuous person never indulges in telling lewd tales. The Word of God declares that "out of the abundance of the heart the mouth speaketh." If we would cultivate purity in thought and action, our language must be chaste, and free from vulgarity and all indecent allusions. The habit so prevalent, among young and old, of carelessness in speech, of passing on filthy stories, and telling over again, as a sweet morsel, the latest scandal or bit of gossip, is a bane to good society, and death to morality and virtue. If it could be borne in mind that "for every idle word that men shall

It may make a difference to all eternity whether we do right or wrong to-day.—James Freeman Clarke

speak, they shall give account thereof in the day of judgment," our words would be fewer, and better chosen. "Let no corrupt communication proceed out of your mouth, but that which is good to the use of edifying."

BAD BOOKS

The fascinating and corrupting influences of the cheap, trashy, sensational literature, eagerly sought after and devoured by young and old of both sexes, is but little realized. Such reading destroys a taste for anything solid or true in thought, word, or deed.

The immoral and sometimes permanent influence of a bad book is correctly told in the following personal experience taken from "Illustrations of Moral and Religious Truth":—

"About twenty-five years ago, I formed a most intimate acquaintance with a young man of fine education and commanding talents, and we soon became bosom friends. One morning after school, at a street corner, he handed me a book which he said he could lend to me for only one-quarter of an hour. We stood at that corner for a few moments, while I looked at the obscene pictures, and read a few pages in that polluting volume. I handed it back to him and never saw it again, but the poison took effect, 'the sin left its mark.' I can not erase the effects of the impure thoughts which in that quarter of an hour that vile book lodged in my heart, and which, may God forgive me, I harbored there. I can and do pray against sin, and for God's grace yet to conquer it; but it is a thorn in my flesh, and still causes me great bitterness and anguish.

"Young men, as a lover of your souls, I tell you in all sincerity that there is nothing which I would not willingly give to have the veil of oblivion cast over the scenes

What you learn from bad habits and in bad society, you will never forget.—J. B. Gough

and the sentiments of that corrupt volume, which still haunt me like foul specters during my hours of private devotion, in the sanctuary, and at the communion table. O, what sad work that quarter of an hour made upon a human soul! *Young men, beware of bad books, and beware also of evil companions.*"

In choosing books, magazines, and papers, the line should be drawn closely against all that is cheap, immoral, and untrue. The truthfulness of a story is no positive proof of its worth. True stories are often quite as indecent as fiction. Only the good is worthy of our time and thoughts.

EVIL COMPANIONS

Evil companions are a sure source of contamination. Characters are influenced and molded by the company kept. We may not become as bad as the companion with whom we associate. Being differently constituted, we may not sink so low in sin; but it is absolutely certain that we can not be familiar with sin and sinners and be safe from their demoralizing influence.

Evil companions are the agents which the devil sends forth into the world to snatch the innocent, unwary, and misguided from the path of virtue, and start them in the downward road to shame and death. In choosing a companion remember the proverb, "He that walketh with wise men shall be wise; but a companion of fools shall be destroyed."

RICH FOOD AND CONDIMENTS

The history of all nations adds its testimony to our observation that rich living tends directly to immorality. During the years of their struggle, while subsisting upon plain, simple food, nations have been hardy, and their morals have been at their best; but with wealth has come

We should correct our own faults by seeing how uncomely they appear in others.—J. Beaumont

luxury; and high living and immorality have weakened the people, and accomplished the downfall of many nations.

Rich and highly seasoned foods stimulate the lower passions and tendencies, and bar, almost impassably, the way to purity.

IGNORANCE OF PARENTS

Parents should consider it a sacred duty to become intelligent as to the means by which vice gains a hold upon their children. Its beginning is very small. The seed may be sown by what is considered a harmless custom, which has established itself during the early days of innocent childhood. It is easier to guard against such things than to reform them. "An ounce of prevention is worth more than a pound of cure."

NEGLECT OF TEACHING IMPORTANT TRUTHS

This subject is more fully treated under "The Care and Training of Children." If parents would study intelligently the beautiful subjects of sex and the origin of life, they would not only be better qualified to teach their children, and hedge them about, and save them from lives of sin and shame, but their own standard of morals would be raised.

LOOSE COURTSHIPS

This is one of the widest of all gates that open into the broad road of immorality. The story of all who enter this gate is the saddest of all the stories of those who lose their innocency and purity. Untaught, unsuspecting, and trustful, thousands of dear girls, as good at heart as any who have been born, come to life's mating season, and are trapped at the very entrance to mature womanhood.

At this time of life, restrictions should not be too se-

A blush is the sign that nature hangs out to show where chastity and honor dwell.—Gotthold

vere, for this is often the direct cause of strong reactions against the right. But it is the privilege and duty of parents to know where their children spend their time, who their companions are, and how their courtships are conducted; and, instead of repressing all their wishes and pleasures, they should give them special pleasures and opportunities; and, at the same time, the children should be made aware of the dangers of familiarity, keeping late hours, and conducting their courtships in secret. Young women should be taught that it is their right and duty to require all young men who seek their company to keep in their proper place, as gentlemen; and young men should be taught to respect and honor womanly reserve, modesty, and purity. When a young woman throws her good sense to the winds, and trustingly abandons herself, soul and body, to her lover before marriage, she has laid hold of the gates of hell, and is in a fair way to enter there.

FALSE STANDARDS

The standard of purity is often set too low. This is as true in many homes as in society. The right standard of purity is absolute and unchangeable in its value. It reaches to the "thoughts and intents of the heart." "Blessed are the pure in heart; for they shall see God." "As he thinketh in his heart, so is he."

One standard has been erected for men and another for women. This is not right. We should require as much from our boys as from our girls,—as much from men as from women. A woman has as much right to require a high standard of morals from the man with whom she associates, as the man has to require the same from her. This should be remembered in all home teaching and practice.

Keep your mind engaged in good thoughts, and bad shall find no entrance.—John Bates

IMPROPER JOKES AND STORIES

A very common practice among men, and we fear to a shameful degree among women, is the habit of telling vile stories, and indulging in lewd jokes. It is a pity that all such human vultures could not be shot with the good weapon once used by General U. S. Grant. At a cabinet meeting on one occasion when business lagged, a certain member proposed to tell a story which he considered proper, as "there were no women present." "But please bear in mind," said the general, "that there are gentlemen present."

IMPROPER CLOTHING

Many of the modern styles and fashions in dress are surely not conducive to social purity. Women, both young and old, who boast a high standard of morality, appear in public in clothing designed to expose the person instead of covering it modestly. Clothing is often worn of such flimsy texture as to expose the body and underclothing shamefully. Is it to be wondered at that men, in the company of these women, indulge impure thoughts, and lose respect for the purity of womankind? Should such women complain of the rudeness of men who stare boldly at them upon the street, and joke and pass unpleasant criticisms and remarks? Women should be admonished by the fact that they themselves are responsible, in a great measure, —by reason of their disgraceful styles of apparel,—for the rapidly decreasing respect for their sex.

Nor is this evil confined to grown-up women. Little girls are dressed so as to deprive them, almost entirely, of modesty. If taught by their dress, in the innocency of childhood, to regard their bodies as common, they will grow up to be bold, if not immoral. A modest style of dress is one of the surest barriers against sin.

A heart unspotted is not easily daunted.
—Shakespeare

FAMILIARITY OF MARRIED PEOPLE

Faithfulness to the marriage vow, by "forsaking all others" and cleaving only to the companion of one's choice, is one of the surest safeguards against social sins.

Undue familiarity with persons of the opposite sex; a desire to be much in the company of the companions of others; the tendency of men to depreciate their wives and admire other women, and of women to flatter and praise other men than their own husbands; the fawning, patronizing practice of men in laying their hands familiarly upon girls and women,—these are some of the first steps by which even honorable men and women have entered the broad road of shame.

Women often become tempters by trifling with men in order to show the power of their blandishments. Such women are a shame to their sex and a curse to society. The only safety is in strict faithfulness to the marriage vows in thought, word, and deed.

JOHN CHALMER'S DEFINITION OF PURITY

"I would have you attend to the full significance and extent of the term 'holy.' It is not abstinence from outward deeds of profligacy alone—it is not a mere recoil from impurity of thought. It is that quick and sensitive delicacy to which even the very conception of evil is offensive; it is a virtue which has its residence within, which takes guardianship of the heart, as of a citadel or inviolated sanctuary, in which no wrong or worthless imagination is permitted to dwell.

"It is not purity of action that we contend for; it is exalted purity of heart—the ethereal purity of the third heaven; and if it is once settled in the heart, it brings the peace, the triumph, and the untroubled serenity of

The man who is not virtuous can never be happy.
—Epicurus

heaven along with it—I had almost said, the pride of a great moral victory over the infirmities of an earthly and accursed nature.

"It brings a health and harmony into the soul—a beauty which, though it effloresces in the countenance and the outward path, is itself so thoroughly eternal as to make purity of heart the most distinctive evidence of the work of grace in time, the most distinctive guidance of a character that is ripening and expanding for the glories of eternity."

A PRAYER FOR PURITY

"Purer in heart, O God,
Help me to be;
That I Thy holy face
One day may see.

"Keep me from secret sin,
Reign Thou my soul within;
Purer in heart, O God,
Help me to be."

SECTION FIVE

The Care and Training of Children

Live With The Children

"Come, let us live with our children!
Earnestly, holily live.
Learning ourselves the sweet lessons
That to the children we give.
Fresh from the kingdom of heaven
Into this earth-life they come.
Not to abide—we must guide them
Back to the heavenly home.

"Come, let us live with our children!
Leading them tenderly on
Into the fields that God's love-light
Ever shines brightly upon.
Then when our feet grow too weary
For the safe guidance of youth.
We shall be led, like the children
To Him who is goodness and truth."



A PROMISED BLESSING

I will pour My Spirit upon thy seed,
And My blessing upon thine offspring;
And they shall spring up as among the grass,
As willows by the watercourses.

—*Isaiah 44:3*

A PRECIOUS BURDEN

When parents receive into their arms one of God's little ones to nourish, to educate, and to train for Him, they receive with that little child a sacred responsibility,—one that should not be carried lightly. All the possibilities of God's plan for the man or woman to be, lie enfolded in that little form. The least that He requires from us in discharging this trust is faithful, intelligent stewardship.

CARE OF THE YOUNG

"A gentleman," says John Bates, "was once riding over the farm of his friend, and observing the superior sheep which he had, he asked him how it was he came to have them so fine. His reply was, 'I take care of my lambs, sir.' What an important lesson this is for fathers, mothers, teachers, and ministers! If we want the future generation to be sober, wise, religious, let us take care of them while they are children. The florist and gardener take care of the buds and blossoms in order that the fruit may be good. So let all who have in any way the charge of the young, pay particular attention to their physical, moral, mental, and religious training, so that their subsequent years may bear good fruit to the world and to God."

A happy childhood is the pledge of a ripe manhood.
—A. Bronson Alcott

NO VACATIONS

From the responsibilities of this stewardship there is no release but death. From the hour we receive the little treasures into our arms, until the heavenly Father calls them to Himself, we must pay the price of constant vigilance and care, or run the fearful risk of losing the fruit of all our efforts. The price which must be paid for well-trained children is daily instruction and constant watchfulness.

Yet how lightly some parents carry this responsibility! Apparently with a total disregard of the corrupting influences on every side, the children are turned out on the street, or allowed to go where they please, "so long as they are out of the way." What a pity it is that so many dear little ones, pure from their mother's arms, and so very susceptible to their environment, ready to absorb either the good or evil, whichever may chance to come along, should be turned over in this careless manner to the "devil's workshop"!

THE OPPORTUNE TIME

"The child is father of the man." Very early he begins to show what the man will be. Then is the time to make impressions; then is the time to educate and train; then the evil may be checked and the good be cultivated. The little mind is then like a piece of moist clay. A bird, even, in alighting upon plastic clay will leave its tiny footprints. Later the clay hardens and becomes a stone, and the footprints remain forever, while upon the hardened stone, even the blows of a hammer would hardly make an impression.

A kind word in due season, a practical lesson at the opportune time, tactful discipline, or well-deserved commendation, may be sufficient to turn the plastic, childish heart toward the right.

Gentle words, quiet words, are, after all, the most powerful, convincing, and prevailing.—Washington Gladden

TOO BUSY

The following appropriate words are taken from the *Christian Observer:*—

"There are thousands of mothers who are so overburdened with trying to meet the daily material wants of the family, that there really seems to be no time for training their children's minds and souls. Let such consider the following incident:—

"I have seen a woman who was absolutely ignorant of her children's habits of thought, who never felt that she could spare a half-hour to read or talk with them,—I have seen this woman spend ten minutes in ironing a sheet (there were six in the washing), one hour in fluting and arranging the puffs of her little girl's 'sweet white suit,' thirty minutes in polishing tins that were already bright and clean, and thirty minutes in frosting and decorating for tea, because 'company was expected.'

"When that mother, a good, orthodox Christian, shall appear before the great white throne to be judged for the 'deeds done in the body,' and to give in her report of the Master's treasure placed in her care, there will be questions and answers like these:—

" 'Where are the boys and girls I gave thee?'

"*Answer.*—'Lord, I was busy keeping my house clean and in order, and my children wandered away.'

" 'Where wert thou when thy sons and daughters were learning the lessons of dishonesty, malice, and impurity?'

"*Answer.*—'Lord, I was polishing the furniture, ruffling dresses, and making beautiful rugs.'

" 'What hast thou to show for thy life-work?'

"*Answer.*—'The tidiest house, Lord, and the best starching and ironing in all our neighborhood.'

"O, these children! these children! the restless, eager

The silent influence of a pious home is illustrated by the Prodigal Son.—Cameron

boys and girls whom we love more than our lives! Shall we devote our time and strength to that which perisheth, while the rich garden of our child's soul lies neglected, with foul weeds choking out all worthy and beautiful growths? Shall we exalt the incidentals of life to the rank of a purpose, to the shutting out of that work whose results reach beyond the stars?

"Fleeting, O mother, are the days of childhood! Speckless windows, snowy linen, the consciousness that everything about the house is faultlessly bright and clean, will be poor comfort in that day wherein we shall discover that our poor boy's feet have chosen the path that shall take him out of the way to all eternity."

NO CARE LIKE MOTHER'S

"I found out long ago that those who get the best return from their flower gardens are those who keep no gardeners, and it is the same way with the child garden; those who are too overbusy, irresponsible, ignorant, or rich to do without the orthodox nurse, never can know precisely what they lose. To watch a baby, untrammeled, grow and expand, is in an intense degree like watching, early of a June morning, the first opening bud of a rose that you have coaxed and raised from a mere cutting. You hoped and believed that it would be fair and beautiful, but, ah, what a glorious surprise it is!"

GOD'S SWEETEST GIFT

"God thought to give the sweetest thing
In His almighty power
To Earth; and deeply pondering
What it should be,—one hour
In fondest joy and love of heart
Outweighing every other,
He moved the gates of Heaven apart
And gave to Earth a mother."



ARRIVED

There came to port last Sunday night
 The queerest little craft,
Without an inch of rigging on,—
 I looked, and looked, and laughed.
It was so singular that she
 Should cross the unknown water,
And moor herself right in my room,–
 My daughter, O, my daughter!

Ring out, wild bells,—and tame ones, too,
 Ring out the lover's moon,
Ring in the little worsted socks,
 Ring in the bib and spoon.
Ring out the muse, ring in the nurse,
 Ring in the milk and water;
Away with paper, pen, and ink,—
 My daughter, O, my daughter!

—*Anon.*

A WELL-SPRING OF PLEASURE

A baby in the house is a well-spring of pleasure; a messenger of peace and love; a resting-place for innocence on earth; a loan to be rendered back with interest; a delight, but redolent of care; honey-sweet, but lacking not the bitter.—*Tupper*

THE MOTHER'S OPPORTUNITIES

Few mothers realize the precious opportunities given them in the possibility of imparting to their little ones the first impressions they receive. Their radiant smiles are the sunshine, and their love the warmth that opens these tiny rosebuds. From the hour of its birth, the influence of the mother begins to form the character of the child.

One good mother is worth a dozen schoolmasters.
—Franklin

TARDY TRAINING

The importance of very early training is seldom realized. Nearly all parents begin too late. At its birth the baby too often takes charge of the household; this is the chief reason why so many children grow to be unmanageable. Yet every careless, indulgent mother believes that she will correct and train her child properly when it is one or two years old; but it is seldom done. The baby merges imperceptibly into childhood and youth, and all the mother's opportunities are forever lost. And indeed it is very difficult to take up privileges and duties of this kind that have been neglected for a year or more. While the little babe is one of the sweetest gifts that God has given to our home, it is often the greatest tyrant,—the most absolute ruler a home can have. This rule is seldom broken. But, on the other hand, a wise mother may train and educate her child from the hour of its birth, and make it largely what she will. The question is whether the mother will direct her child with wisdom and intelligence, or become the servant—yes, the slave—of her little babe, with all its baby fancies and ideas.

PATIENT, QUIET CONTROL

Nervous, excitable children are often made so by nervous, excitable mothers. The following suggestions will work well in nearly all cases:—

1. Speak to the baby in a low, sweet tone of voice; move quietly about the room; never hurry or show excitement.

2. Do everything for the little one in a regular, quiet way. It will soon fall into the mother's ways, instead of the mother falling under the baby's rule.

3. Never scold the baby, or say or do anything that will frighten or greatly surprise it.

Where there is a mother in the house, matters speed well.
—A. Bronson Alcott

4. Do not permit older children, or friends and visitors to excite the child or handle it roughly.

5. Remember that your baby will perfectly reflect your own deportment as shown in every word and action.

BAD HABITS

The mother often makes much trouble for herself by teaching the baby bad habits. She rocks it, carries it, tosses it, keeps the light burning at night to keep it from crying, feeds it irregularly, usually whenever it cries, and gives it sugar and other "comforters" to try to satisfy all its demands. These indulgences are an injury to the child's health, and have a weakening influence upon its character.

At the proper time, the baby should be put to bed away from the light. If it cries, the mother should satisfy herself that nothing serious is the matter, and then leave the baby quiet. Firm persistence will soon teach him that he is to go to bed that way, and he will like it better than all the foolish tossing, carrying, or rocking. That does not rest or soothe a tired, cross baby. It only injures it, and develops a bad habit. If mothers will begin right, keeping a quiet, firm, beautiful, and motherly control, much trouble will be saved.

BABY'S CLOTHING

The baby's clothing should be light and warm. Flannel is usually the best material to be worn next to the body in winter. In warm weather the clothing should not be so heavy as to make the baby uncomfortable. Babies perspire easily, and when dressed too warm are liable to take cold if exposed to a draught.

The clothing should not be too tight nor too loose. If the baby's body is restricted about the abdomen, the in-

At first babies feed on their mother's bosom, but always on her heart.—Henry Ward Beecher

ternal organs will become displaced and cause deformity and suffering all through life. Restrictions about the arms and legs, though not so serious, hinder the free circulation of blood and retard development.

The extremities should be well covered. Often too much clothing is put upon the baby's body and not enough upon the arms and legs.

While the baby should be kept comfortably warm, it should never be kept so warm as to make it perspire. Babies dressed in rather light clothing and kept in cool rooms are not so likely to take cold as when kept too warm.

The little baby's long clothing is often made too long and too heavy; and the mother's delight in the long, pretty dresses, and her desire to keep her baby as long as she can, often leads her to keep it too long in long dresses. In countries where the long dresses are discarded when the baby is from six weeks to three months old, the little fellows seem to get on quite as well; for better opportunity is thus given for the limbs to develop strength from activity.

THE BABY'S FOOD

The best food for an infant is its mother's milk. All advertisements claiming that some patent food is better are frauds. Those babies thrive best which are nursed at their mother's breast, and it is an unkind, unmotherly act to deprive the little one of its natural food without very good physical reasons for doing so.

If it is necessary that a baby shall be hand fed, cow's milk is the best substitute for human milk. If possible, it should be secured from a young, healthy cow. This is not always possible, particularly in large cities; but even under those conditions parents should take sufficient interest in

An ounce of mother is worth a pound of clergy.
—Spanish Proverb

the milk supply to know that it comes from well-kept, healthy cows, and that it is unadulterated.

Too much importance can not be attached to the purity and quality of the baby's food. Complications will arise, however, even when the greatest care is taken, and unless the mother understands how to feed her infant intelligently, she should consult a reliable physician instead of experimenting with patented foods until the baby's health has been undermined.

REGULARITY

Ignorance and custom have agreed together that babies shall be fed whenever they cry. It is well for the babies that the more intelligent of mothers have broken away from this custom, and are feeding their babies at regular intervals. The baby's cry is an expression of all its wants and pains. It is quite as likely to be an indication of overfeeding, and consequent pain, as of real need of food. Irregular feeding is the first step toward a perverted appetite and a weak digestion.

Until the baby is three months old, it may be fed once in three hours, the time being lengthened gradually. Do not awaken the baby to feed it. If in good health, it will sleep at night, thus lengthening the time between feeding considerably. At six or eight months of age the baby should be fed only four times a day, and not at all at night. At one year old, it can take its meals three times a day, at the regular hours.

Never give the child food between meals. It is an injury to it, and becomes a serious menace to its successful discipline and training.

A PLAIN, SIMPLE DIET

The general principles given under the subject of "Good Food," in another section, will apply in the feeding

The most important part of education is right training in the nursery.—Plato

of children. Candy, rich cakes, pastries, or other rich foods should not be given to them. Plain food, at regular intervals, milk and water to drink, and plenty of fruit, will make robust bodies and sweet tempers.

NURSING-BOTTLE

If the baby must be brought up on a bottle, the greatest care should be taken to insure perfect cleanliness and sweetness of the bottle and nipple. Bottles with tubes should not be used, for it is almost impossible to keep the tubes clean.

CARE OF THE EYES

When the baby is very young, particular care should be taken that its eyes be not injured by any strong light. Every one knows how painful a strong light is to the eyes after they have been closed for a few hours. Is it any wonder that the new-born babe, which has never seen the light, winks and blinks at the painful glare. For several days after the baby is born it should be kept in a shaded room. Serious injury is likely to be caused by the brilliant glare of an electric light or an unshaded window; besides, the baby will rest and sleep better in the dark or where the light is dim. A tallow candle gives the best light for baby's eyes for several days after its birth

SOOTHING-SYRUP

Soothing syrups are to the baby's stomach what powerful drugs are to an adult. They are the A B C of drug medication. The fact that they are "soothing" in their effects is often due to the presence of opium or some other narcotic poison, which works terrible havoc in the tender body of the little child. Parents should seek to become intelligent in regard to these vital matters, and cease to administer to their babes these dangerous compounds.

We should treat children as God does us.
—Goethe

BATHING

Frequent bathing is as good for babies and young children as for adults. The baby should have a daily bath. The temperature of the water should vary according to the climate and the constitution of the child. The water should never be so cold as to be unpleasant or prevent a strong, warm reaction. If these daily baths can be kept up all through the years of childhood, it will be a great blessing to the little folks. With proper conveniences, only a little time is required to give the bath, and rub their bodies into a healthy glow. This will bring the blood to the surface, and relieve the brain and other vital organs.

POISONED WHILE SLEEPING

Children should never be allowed to sleep with a tobacco-using father; for their tender bodies will absorb the deadly poison thrown off from the father's skin, which is likely to destroy the child's nervous system.

Don't make the baby's bed on the floor. The air is purest in the middle of the room; therefore the bed should be reasonably high.

SLEEPING WITH THE HEAD COVERED

When the baby is put to bed, its head should not be covered. This is frequently done by ignorant mothers, who believe that this is the way to keep it from taking cold. On the contrary, this is one of the most common reasons why babies take cold. They are slowly poisoned by the vitiated air, and this causes labored breathing, which soon puts the little one in a perspiration; then when it is uncovered, it is almost certain to take cold. By this unwise practice, children often acquire the habit of sleeping with their heads covered, and are poisoned and weakened all through life by impure air under the bedclothes.

"If you love them, tell them so,"

TOO MUCH ATTENTION

A healthy babe, coolly and loosely dressed, judiciously fed, and frequently bathed, will be good and comfortable if it have not too much attention. But when it is liable a dozen times a day to be caught wildly up, bounced and jumped about, smothered with kisses, poked by facetious fingers, and petted until it is thoroughly out of sorts, what can be expected of it? How would fathers and mothers endure the martyrdom to which they allow the babies to be subjected?—*Margaret Sangster*

TO BED WITH A KISS

"O mother, so weary, discouraged,
Worn out with the cares of the day,
You often grow cross and impatient,
Complain of the noise and the play;
For the days bring so many vexations,
So many things going amiss.
But, mothers, whatever may vex you,
Send the children to bed with a kiss.

"The dear little feet wander often,
Perhaps, from the pathway of right;
The dear little hands find new mischief
To try you from morning till night.
But think of the desolate mothers,
Who'd give all the world for your bliss;
And as thanks for your infinite blessings,
Send the children to bed with a kiss.

"For some day their noise will not vex you;
The silence will hurt you far more;
You will long for the sweet children voices,
For a sweet childish face at the door;
And to press a child's face to your bosom,
You'd give all the world just for this.
For the comfort 'twill bring you in sorrow,
Send the children to bed with a kiss."



PHYSICAL TRAINING

The physical training of girls should begin in early childhood. It should receive the most painstaking attention, both at home and at school. At home she should be taught all the arts of housekeeping by working with her mother; and, if possible, she should be sent to a school where physical exercises are intelligently taught for the rounding out and development of every muscle of her body.

Besides this physical training under discipline, she should be free a reasonable portion of the time to romp and play. It is stated on good authority that "if a young girl is left unrepressed to romp and exercise at will, she will develop a muscular system finer, more compact, and more enduring than her brother's, because of her finer grain, coupled with a greater degree of vital strength and endurance."

Physical weakness is a fruitful cause of immorality. Just as a powerful vitality can resist the attacks of disease, so physical strength is often able to ward off immoral tendencies

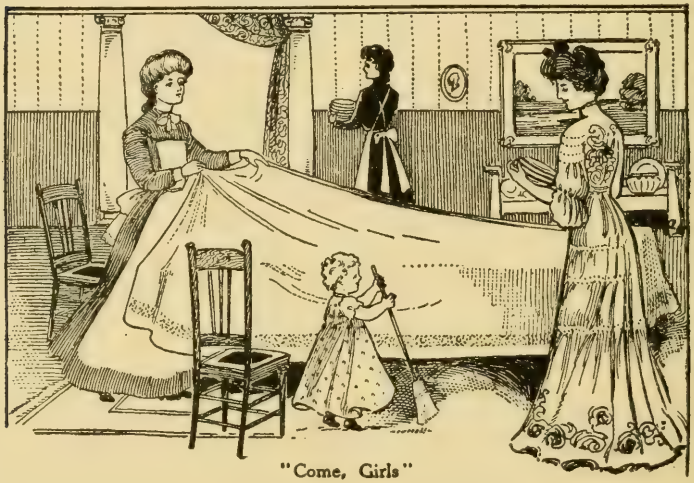
HER EDUCATION

A girl's education should be liberal. It should consist primarily of practical subjects which will make her competent for the stern realities of life. She should not be taught that fine clothes, superficial society manners, nor an ornamental training in music and painting, are the fundamentals of her education. History, sciences, mathematics, literature, elocution, and calisthenics are as good for girls as for boys. These, together with a thorough knowledge

"My baby girl, I sing of thee,
Because thou art like song to me."

of all the arts and sciences of home-making, should constitute the foundation of her education.

The importance of the little girl's education is summed up in one brief sentence by Dr. Kate Lindsay in "The



"Come, Girls"

Training of Girls." She says: "A girl who is a physical wreck is a failure; one who is a mental wreck is a still greater failure; and one who is a moral wreck is lost."

INWARD BEAUTY

Beauty is an excellent gift of God. The word of God draws clear distinction between inward and outward beauty, expressly declaring that a fair woman which is without discretion is as a jewel of gold in a swine's snout. "Many a pretty girl is like the flower called the imperial crown, which is admired, no doubt, for its showy appearance, but despised for its unpleasant odor. Even so, external beauty of person deserves no praise, unless matched with the inward beauty of virtue and holiness. It is, therefore, far

All that I am or hope to be I owe to my mother.
—Abraham Lincoln

better to acquire beauty than to be born with it. The best kind is that which does not wither at the touch of fever, like a flower, but lasts and endures on a bed of sickness, in old age, and even at death." This is one of the greatest lessons that a mother can teach to her girls; and this is doubly true in view of the many temptations thrown in their way to turn their minds toward vanity and show in their outward appearance.

MOTHER'S COMPANIONSHIP

The little girl, in order to grow up innocent, intelligent, strong, and womanly, needs first of all her mother as an intimate companion and confidant. The following beautiful words, written by a devoted mother, while they refer in a general way to the attention which all children should receive, yet they apply very particularly to the personal companionship which a mother should enjoy with her little girls:—

"When my children were young, I thought the very best thing I could do for them was to give them myself. So I spared no pains to talk with them, to pray with them, to be a loving companion and friend to my children. I had to neglect my house often. I had no time to indulge myself in many things which I would have liked to do. I was so busy adorning their minds and cultivating their hearts' best affections that I could not adorn their bodies in fine clothes, though I kept them neat and comfortable at all times."

WHAT A LITTLE GIRL SHOULD BE TAUGHT

To cook plain, wholesome food.

To make her own clothes.

To be neat and orderly, beginning with the care of her own person and room.

Purity of mind and conduct is the first glory of a woman.
—Madame De Stael

That she should learn well the arts of housekeeping and home-making before trying to make a home of her own.

That she should exercise a quiet reserve in the presence of boys and men.

That all cheap talk is unbecoming.

That loose jokes about "beaux" and "lovers" are improper.

That modesty is a priceless treasure, and will prove her surest protector.

That her brothers are better escorts than most other young men.

That her mother is her best companion and counselor.

That her dress should be plain, and should not be the chief subject of her thoughts or conversation.

That she should wear only such styles of clothing as will cover her person modestly.

That it is better to be useful than ornamental.

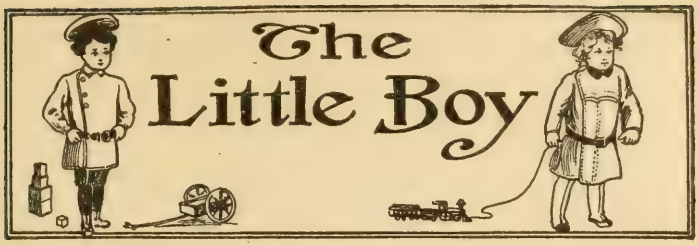
That there will be time enough to learn fancy work after she has learned to darn stockings.

That the old rule, "A place for everything and everything in its place," is a good one.

That she should dress for health and comfort as well as for appearance.

FROM HER MOTHER FIRST

As soon as the little girl manifests her first curiosity concerning the mysteries of life, her mother should tell her truthfully the sweet, simple story. If she learns it first from her mother, she will guard and prize the knowledge as a treasure; if she learns it first from rude, ill-taught companions, the information will leave a stain upon her purity.



A BOY WANTED

"What kind of boy does a business man want?" repeated a shrewd, practical man of many concerns. "Well, I will tell you. In the first place, he wants a boy who doesn't know too much; business men generally like to run their own business, and prefer some one who will listen to their way, rather than try to teach them new kinds; second, they want a prompt boy,—one who understands seven o'clock as exactly seven, and not ten minutes past; third, an industrious boy, who is not afraid to put in a little extra work in case of need; fourth, an honest boy,—honest in his service, as well as in dollars and cents; fifth, a good-natured boy, who will keep his temper, even if his employer does lose his own now and then."

"But you haven't said a word about his being smart," was suggested.

"Well, to tell the truth," was the rather hesitating answer, "that's about the last thing we worry over. The fact is, if a boy is modest, prompt, pleasant, industrious, and honest, he's about as smart as we care about generally—and that's a fact."

PAINSTAKING EDUCATION

Such strong, gentle, manly boys are a joy to their parents, and will grow up to be a blessing to the world. They are wanted everywhere, but are hard to find.

Boys are not strong by chance. They do not develop on the street, or "grow wild." They are developed and trained by the most thoughtful, intelligent parents and teachers.

"To our life's latest hour 'twill be one of our joys
That we kept a small corner,—a place for the boys."

In many cases the little girl is better trained than her brother. When not in school, she is with her mother, and enjoys a close, parental companionship, while the boy is too often allowed to find associates where he can upon the street.

MAKE HIS PROGRAM

Neglected boys usually fall into evil. Their resourceful energy will hunt out the arts of sin if not directed into the paths of right. Make their program. Plan both their work and their play. When the father is away, or if his work is not such that the boys can work with him, why should not the mother plan the work and the play for the boys as well as for the girls? Boys need the refining influence of mother's daily teaching and companionship.

WHAT A LITTLE BOY SHOULD BE TAUGHT

To be strong and brave—to be a little man.
To shun evil companions.
To respect gray hairs.
To be gentle.
To be courteous.
To be prompt.
To be industrious.
To be truthful.
To be honest.
To seek the companionship of his sisters in preference to any other girls.
To honor his father and his mother.
To be temperate.
To discard profanity.
To be thoughtful and attentive.
To keep himself pure.
To be his sister's protector.
To refuse to listen to vulgar jokes or stories.

When one asked him [Agesilaus] what boys should learn, "That," said he, "which they shall use when men."—Plutarch

To use common tools skilfully.
To care for his own room.
To do all kinds of housework.
To earn money and to take care of it.
To be neat and orderly in his habits and appearance.
To be self-reliant.
To be his father's partner.

THE VALUE OF CONFIDENCE

If you would have the confidence and cooperation of your boys, place full confidence in them. To be sure, they are full of fun, and like to play better than to work, but they have hearts, and the full number of senses. Show them that you do not trust them; talk to them of their "folly;" tell them that you can not trust them for anything; and all that you say of them will doubtless prove true. Your talk and attitude toward them will do much toward making them either good or bad.

EARLY RESPONSIBILITY

The most effective way to express confidence in a boy is to place responsibility upon him. He can learn to carry small burdens when he is quite young. His little heart will swell with strength and pride as he discovers that he is depended upon by his father and mother.

A serious injury is often done the child by removing a responsibility when a mistake is made, or when the work is poorly done. That is not the way to make a boy strong. Reprove the mistakes, rather, with kindness; correct what has been poorly done; praise that which has been well done; and you may confidently look for improvement in the boy's work with every trial. If his successes are properly recognized and encouragingly approved, he will bear a just reproof or criticism without becoming discouraged.

How sweet to gaze on baby's face
And dream of future manhood days.—Eugene Field

FROM HIS MOTHER FIRST

As early as he can be made to understand, he should be taught, preferably by his mother, the simple, beautiful truths of life and sex. The mother should improve opportunities to be alone with her boy. She can take him for a quiet walk, or enlist his help in some work with her; and then, in an easy, natural way, she can open up to his inquiring mind the interesting science of reproduction in plants and animals. Learned in this way, the subject will always be a sacred one. He will love his mother better, and respect all womankind. If, on the other hand, this knowledge comes to him in its grossest form, from rude playmates, it will leave a scar upon his virtue, and a cloud upon his morals. Parents who miss the opportunity of teaching these sweet lessons, have lost one of their privileges of binding their children closely to them, and of saving them from the great evils that are set as snares for their feet

PURE AND TRUE

When threads of thought begin to spin,
 And webs of mind to weave,
When kindling souls look out at eyes
 That know not to deceive,
The mother's holiest task to keep
 Her darling pure and true;
Her constant care, her watchful prayer
 Alone can guide him through.

—Mrs. E. P. Miller



A NATURAL RIGHT

There is no right to which every child is more entitled than to that of perfect physical health. Every mother should secure for her children such conditions as will insure sound bodies and good health, for through these are obtained not only comfort, but also the highest and best possibilities of life.

Proper clothing is one of the prime factors in the promotion of health, not only in adults, but also in growing children. In fact, at no time in life is there greater need of care in clothing the body, than during the period of growth and development.

Childhood is the best time to lay the foundation for future health and strength; for, in matters pertaining to health, as well as in those of mental growth, "the principle holds true that the farther back we begin, the more momentum we gain." Many mothers are slow to recognize this fact, and, while they often dress themselves so as to secure warmth and ease, their little ones are made to suffer from improper clothing, to make the tiny creatures more "charming" and "dainty," regardless of health and comfort.

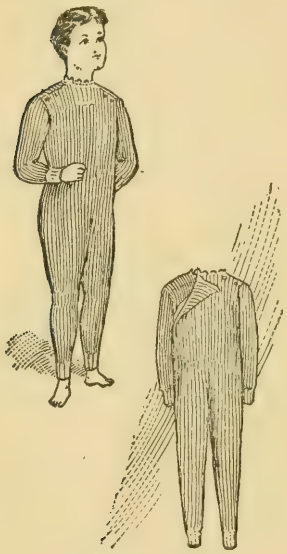
CLOTHING THE EXTREMITIES

Fashion and custom have formed a conspiracy against the children by dictating that their bodies, which need the least clothing, should be heavily dressed, while their legs, feet, and arms are left exposed.

By leaving the extremities exposed during cold, damp weather, while the body is, perhaps, too heavily covered,

Angels may dress in rags, and devils wear silks and broadcloths.—Philemon

the arteries of the arms and legs are contracted, and the blood is forced back to the vital organs, which become congested; and colds, coughs, sore throat, pneumonia, and consumption often result. But even though the more fatal diseases may not soon appear, frequent colds and distempers, caused by such exposure, plant the seed in early life for a harvest of disease, and an untimely death.



Combination Suits

UNDERCLOTHING

Woolen underclothes are often made in two pieces, so that they lap around the abdomen, giving a double covering where it is not needed, while the sleeves are short or cut off entirely, and the legs hardly come below the knees.

Combination suits, with long sleeves, reaching down to the wrists, and legs long enough to cover the ankles well, are best for every one to wear when the weather is damp and cold.

"THE BAREFOOT BOY"

It may be all right for small boys to go barefooted during the warmest weather, but even then care should be taken that they do not suffer from exposure mornings and evenings, and on wet, cold days.

Girls should never be allowed to go barefooted, except as a childish luxury around home, on warm days. It may not be so bad for little girls to go barefooted, but as a general practice, it can not be recommended as conducive either to health or modesty.

Virtue alone raises us above hopes, fears, and chances.
—Seneca

In cold weather, keep the children's feet well clad. Provide warm woolen stockings, and high shoes with thick soles.

The stockings should be rolled up over the woolen drawers, and reach well above the knees. One of the most serious mistakes made in dressing children is the lack of proper covering for the feet, thus allowing them to become cold. Because of their extreme distance from the fountain of warmth and energy, the feet require extra covering.

WET FEET

If from any cause the children get their feet wet, the damp shoes and stockings should be promptly removed and replaced by dry ones after the feet have been thoroughly warmed and rubbed.

Children going to school should be provided with rubbers or overshoes on wet or snowy days, and be taught to use them properly. If a child gets his feet wet on the way to school, and then sits in the schoolroom while his shoes and stockings dry on his feet, a bad cold, if not serious sickness, is almost sure to follow.

TIGHT SHOES

Children are frequently tortured most cruelly by narrow, ill-fitting, tight boots and shoes. These frequently cause corns, bunions, cold feet, and chilblains; thus the little feet are misshapen while the bones are soft and easily compressed, causing suffering all through life.

Many parents have an idea that high shoes, buttoned closely, support the ankle, but this is a mistake; just the opposite is true. If properly supplied with blood, the ankle in all normal cases is quite able to support the body; but if the blood is shut off by restrictions, the ankle is weakened.

"The worm that works in the trunk of the tree is always advertised somewhere in the branches."

High shoes are better than low ones, as they protect the ankles from the cold, but they should be buttoned or laced loosely, so as to permit free circulation of the blood.

High heels should never be tolerated, as they throw the body out of poise, and shift the direction of pressure so that the weight of the body crowds the foot too far forward in the shoe.

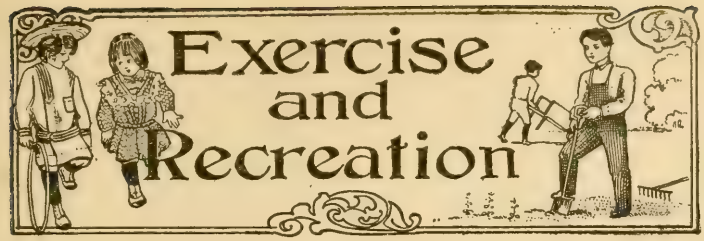
TIGHT CLOTHING

Every article of a child's clothing should be loose and comfortable. There should be no restriction to interfere with the free circulation of the blood, and a full expansion of the chest and abdomen. All the clothing should be hung from the shoulders, either by suspenders or waists, and should hang so loosely that every article will be raised when the shoulders are lifted. Mothers will need to exercise special care that the underclothing does not become tight either from shrinkage or by being outgrown.

Stockings should be supported from the shoulders either by a waist or suspenders. The old-fashioned elastic worn around the leg, either above or below the knee, is a greater injury than is usually supposed. A restriction of this kind hinders a free circulation of the blood and is a common cause of cold feet.

GAY CLOTHING

Dress the children in plain, neat clothing. Avoid high colors and fancy work, which make unnecessary labor, and cultivate pride and vanity; and, on the other hand, do not dress them shabbily, with ill-fitting, ugly garments, which will make them ashamed and self-conscious.



ACTIVITY OF CHILDHOOD

"It sounds commonplace," says M. V. O'Shea, in the *Twentieth Century Home*, "to say that the young child gives way easily to his feelings. He cries upon the slightest pretext, laughs immoderately over trifles, gabbles incessantly when he ought to maintain silence, flies into a passion whenever he is crossed, and so on *ad libitum*. The chief problem of parents, perhaps, is to restrain these annoying expressions of the young. How frequently one hears a mother say of her boys, 'They will drive me to distraction.' Compared with ourselves, our children seem impulsive, wilful, uncontrolled, and excessive in everything but goodness. They are unreasonable, heedless, acting without consideration of what their environment demands. They struggle with almost malicious persistence to carry on their own enterprises, regardless of the desires of their governors. A fidgety adult, or one who craves quiet, may expect little peace when in the company of children from two to eight who may have been encouraged in their spontaneity. They will be continually striving to perform tasks for which they lack size or strength or ingenuity, and they will use every means at their command to get help from those who can aid them. They will be running about, jumping, climbing, shouting, and handling everything novel within reach.

"Aristotle tells us that the child craves exercise of all its motor powers. . . . The characteristic of childhood which stands out most prominently in the testimonies of modern students of children is motor activity. They tell us that the infant must be continually in action during most

Love childhood, encourage its sports, its pleasures, its amiable instincts.—Jean F. Rousseau

of its waking moments. A well-known educator has kept a record of the activities of his two children for a single day.

"Speaking of the speech activity of a normal five-year-old child for one day, he says: 'When I counted the total number of words which the child used, I was not surprised to find them footing up to fourteen thousand nine hundred ninety-six. One week later a similar observation was made upon the younger child. Her record for the day was a total of fifteen thousand two hundred thirty words.

" 'As to the other activities involved in the day's records, I wish to say that although I followed each child about the house, barn, yard, garden, sidewalk, across the street to playmate's yard, swing, sand-pile, etc., I went through fewer than one-fifth of the movements of body, legs, arms, hands, head, which the child under consideration went through.' "

COMPANIONS AND PLAYMATES

Companions for the children should be very carefully selected; they should not be "picked up." Just as Satan always has a guerrilla warfare to wage upon every developing good, so he has in every neighborhood children whose morals are corrupt, ready to attach themselves, as companions, to every pure, well-trained child.

Parents should guard their little ones against the polluting influences of such boys and girls, by learning as definitely as possible who the bad ones are, and so plan their children's plays and associations that they will be brought under the influence of good companions.

Too often parents do not have the moral courage to protect their own children against such influences, for fear neighbors will take offense; but a sense of their sacred responsibility should be sufficient incentive to enable them to be true to their trust.

Our thoughts are heard in heaven.
—Young

When children from different homes are allowed to play together, the association should be mutually arranged for by the parents of both families, and all the children should be under the direction and observation of the parents of one of the two homes. By beginning this way, and by giving the children a "jolly good time" at home, they are not so likely to ask to stray far away where aimlessness and solitude give favorable opportunity for evil.

A DEBASING PRACTICE

One of the most debasing indulgences granted to children is that of permitting them to stay away from home with their playmates overnight. It is well that this is becoming less a social feature than it once was. Children away from home throw off restraint, particularly at night when tired, and their deportment frequently becomes rude and careless. Being in a strange place, and under nervous excitement, they are not likely to sleep when they retire. Long visits, in the darkness and quiet of their rooms, is the result. And during hours, perhaps, of unprofitable talk, imagination is aroused, confidences are exchanged, all they know of good or bad is told, passions they never dreamed of are set on fire, and impure thoughts and actions are the result; and before the confiding, unsuspecting parents are aware, vice, with its weakening, soul-destroying grasp, has fastened itself upon their beautiful boys and girls, and undermined their morals and their strength. This flood-gate of sin can not be kept too closely guarded.

PARENTAL COMPANIONSHIP

Parents should make themselves the jolliest, heartiest, and best companions of their children, both in work and play. Open your heart wide to their joys; romp with them, at the proper time; plan their plays, and teach them how

Good companionship does not depend upon accident, but upon selection.—Australasian Good Health

to be brave and honest in their games. The children will not be slow in responding, and will welcome their parents in preference to all other companions. Do not regard their plays as foolish. Proper plays are necessary for health and vigor. All study and no play makes a sickly, useless child.

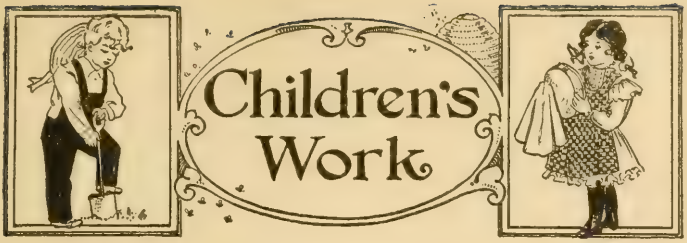
THE "HOME-WORK" FAD

I saw a boy, a little boy
But ten (or scarcely more),
Come staggering home beneath a weight
Of text-books that he bore.
In school from nine to three he toiled,
From seven to nine with tears
He fagged at "home-work" sleepily—
This boy of tender years.

"What do you learn, O little boy?"
He answered dolefully:
"Why, hist'ry, word analysis,
Advanced geography,
Physiology, and language,
And art and music—well,
And physics and arithmetic—
Of course we read and spell."

"When do you play, O little boy,
Of years and text-books ten?"
" 'Bout half an hour, because I've got
To do my 'home-work' then."
His head was large, his face was pale;
I wondered how the nation
(Whose hope he was) could ever use
This slave of Education.

—*Ella M. Sexton*



THE A B C OF USEFULNESS

Children, when very young, should be taught the A B C of common work as an index to lives of usefulness. There are few sights more pitiful than that of boys and girls growing up to the strength of manhood and womanhood without a practical knowledge of the most necessary employments. Even the children of wealthy parents, who do not expect to do much of life's drudgery, should learn the routine of common work as thoroughly as others; for unless they know how to do every detail of practical work, and do it well, they will be unfit to manage business or superintend a home.

A MODERN SHAME

It is a shameful thing, which is altogether too commonly seen, for parents who have toiled for their children from their earliest infancy, not to receive any help from them as they grow to maturity. Boys spend their entire time in school and on the playground. Father can work from morning till night to give them food and clothing and all the comforts of home, and provide them with bats, and balls, and bicycles, and they go on with their play without a thought of how they might help father, even with the lightest of his burdens.

The girls go to school, visit and titter with their girl friends, "dress up" and sit in the front room, practise their piano lessons, and receive company, while mother "bears the burden and heat of the day," in the kitchen, and toiling at the wash-tub, and bending for hours over the ironing-board.

Doing nothing is an apprenticeship to doing wrong.
—W. F. Crafts

AN INJUSTICE

Parents are chiefly to blame for this condition of things. They labor hard, and bear almost any expense that the children may be well educated in book knowledge; but why neglect instruction in these fundamentals of daily duties, thus permitting the children to grow up inexperienced, spineless weaklings, wholly unfitted for the stern realities of life, which they must soon meet? By this neglect, parents are doing their children a serious injustice, which prepares the way for failures, sorrows, and regrets in after years.

EARLY RESPONSIBILITIES

Children should be taught early to bear responsibilities. At first very little tasks can be given them. They will need much instruction and help; and here is where most fathers and mothers make a mistake; they find that they can do the work better and quicker than if they "bother" with the children; and so the education of the little ones is neglected, just when they most need patient instruction.

But it will pay, oh, so richly, to take time to teach the boys and girls how to do little duties, and to do them well. The work required from them should not be haphazard. Tasks should be assigned which will require daily attention at a definite time, and they should be held responsible for doing even the smallest things carefully and well.

The boys may bring in the wood and coal, feed the chickens and calves, sweep the walks, water the cow, rake the yard, gather up the litter, and thus be taught important lessons in the care of the surroundings of the home.

Girls may make their own beds, tidy the room, sweep the floor, dust the furniture, care for their books and playthings, help wash and wipe the dishes, and, in fact, work with mother at almost everything she does.

"Occupation and exercise are the handmaidens of purity and strength."

PLAY WORK

With wise direction the child will come to enjoy the work more than his play, and will gladly leave his romping if he can work with papa or mama. Let some of his playthings be articles with which he can learn to do useful things. The girls may have miniature wash-tubs,



The Best Kind of Play

wash-boards, flat-irons, pails, brooms, and brushes, and be taught how to use them. It is surprising how they will watch mother, and learn to imitate her. They can have needles and thread, scissors, and thimble, and be taught how to sew and darn. Their work will be imperfect at first, but it will rapidly improve under patient instruction.

If at all possible, provide a little shop for the boys, and give them a saw, hammer, and hatchet. Even with these tools, and a few nails and a pocket knife, you will

"It is love that lightens labor."

be surprised and overjoyed to see what the little fellows will make. Provide other tools if you are able, and teach them how to care for them. There is nothing finer to interweave into a boy's education than the use of tools. They teach him to think, to persevere, and to plan; and, as he works, you will see that his mind is being drawn out and developed along the line of work at which he may be the most successful in after years; and these little facilities which you have placed within his reach will help you to judge what his future training and facilities ought to be.

Such work will soon become the children's delightful play, and you will discover to your great joy that, little by little, they are dropping the notion that they must be all the time with their playmates, and out of your sight. Such attractions are better than force to hold them at home.

THE VICE OF IDLENESS

Through the door of idleness the devil finds the most ready entrance to children's hearts. "The devil finds work for idle hands to do," and, "An idle brain is the devil's workshop," are sayings as true as they are old. Idle feet soon find a sinful path. To relieve the children from healthful, useful employment is the very worst course parents can pursue. They will not long remain inactive; and if left to an idle, aimless course, their imaginations and natural tendencies to stray into sin will soon lead them to indulge in thoughts that are not pure and healthful, and vice, with all its weakening tendencies, is almost certain to fasten upon them. To an alarming extent the solitary vice is sapping the morals and youthful strength of our little ones, and parents with their own hands open the door, and let the despoiler in, when they permit their children to grow up in idleness.

Sloth, like rust, consumes faster than labor wears, while the used key is always bright.—Benjamin Franklin

"COME, BOYS"

A successful man once said that he believed that his enjoyment in work was largely due to the fact that his father nearly always said, "Come, boys," instead of, "Go, boys." Few boys, when young, will do a job of work well if sent away by themselves to do it. Sometimes this may be necessary, and if the boys have been led on to love their work, they can be trusted to do it well and faithfully when sent away alone. But that is not the way to teach children to love their work and do it well.



"Come, Boys"

Father should say, "Come, boys," when he has work to do that they can help him with. In a positive, joyful way, show them just what to do and how to do it right. Then let them try. Do not find fault nor scold. They are learning, and the little hands are not yet as skilful as yours are, and as theirs will be soon, if you are kind and patient and persevering. Do not believe for a moment that they are careless or naughty if they make mistakes. Keep showing, and soon they will do it

"If good we plant not, vice will fill the mind."

better, and will be proud of their first achievements, particularly if you give them a few words of praise.

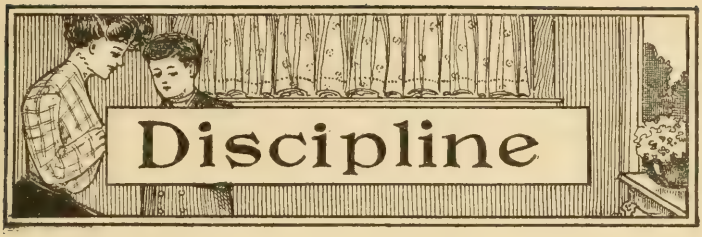
"COME, GIRLS"

What opportunities mother has for this kind of teaching! The little girls can help with all she does. Teach them that they are to be their mother's companions and helpers in all the work, and keep up the idea and practice all through the years while they are at home. In this way they can be taught to wash, to iron, to bake, to mop, to scrub, to sweep, and to dust; and then when mother is wearied or sick, the little girls can lift many burdens from her dear shoulders, and be such a help and comfort. In after years they will know better how to make their own homes sweet and bright.

MODERATE TASKS

The tasks set for children should be moderate. Overexertion is hurtful both physically and intellectually, and even morally. But it is of the utmost importance that they should be made to fulfil all their tasks correctly and punctually. This will train them for an exact and conscientious discharge of their duties in after life.—*Hare*

"Never you mind the crowd, lad,
Or fancy your life won't tell;
There's always work for a' that, my lad,
To him who doeth it well."



MERCY

The quality of mercy is not strained;
It droppeth as the gentle rain from heaven
Upon the place beneath; it is twice blessed;
It blesseth him that gives and him that takes;
'Tis mightiest in the mightiest; it becomes
The throned monarch better than his crown;
His scepter shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings;
But mercy is above this sceptered sway,—
It is enthroned in the hearts of kings;
It is an attribute of God Himself;
And earthly power doth then show likest God's
When mercy seasons justice.

—*Shakespeare*

Love, mercy, and justice should be the leading factors in the dealing with children. They are needed most as a guide when it becomes the painful duty of parents to punish their children for wrong-doing. Until the child comes to years of accountability, the parent stands in the place of God to him. The ideas which he will carry through life of God's love, mercy, and justice, are shaped more largely than we can realize by the attitude of parents.

Most parents dislike above all things to inflict corporal punishment upon their children, and this often leads, on the one hand, to loose neglect, or, on the other, to summary and perhaps brutal treatment and unkind words, when the child has been especially provoking. Either course is equally disastrous to the child's future good. Children that are not properly trained or corrected soon assume control of the house, and become almost intolerable wher-

Teaching a child to do right is in itself teaching him not to do wrong.—Ennes Richmond

ever they are. They grow up self-willed, rude, and unkind, and become a blot to their homes and to society. While, on the other hand, if they are punished only under the stimulus of passion, by miscellaneous cuffs and blows, though some momentary satisfaction may be felt by the irritated parent, no good can come to the child from such a course. He is simply being taught to strike, fight, and give vent to his temper, and the parent's discipline extends only to the time when the boy can whip his father. Then the table is turned, the boy assumes control, and the parents are likely to have their own method returned to them with interest compounded.

HOW EARLY MAY DISCIPLINE BEGIN

This question is one of the most common and perplexing to mothers. Failure to answer it correctly is the most common reason for badly trained children. It is not uncommon to see children from six months to two years old tyrannizing over a whole household, and apparently beyond control. This unnatural condition of things is the parent's fault. It is the direct result of beginning the discipline of the child too late, which often means that it is not begun at all; for the early excuse that the child is too young to know better, or to be taught, is also the excuse from month to month indefinitely, and the little one becomes a family tyrant, beyond control, before an effort is made to direct him.

The time to begin is when the child is born. Firm, wise direction from the beginning will have its influence, and little by little the baby will learn that his mother is his teacher and director.

TWO YEARS LOST

"When shall I begin to train my child?" asked a young mother of a learned physician.

"Mildness governs more than anger."

"How old is the child?" inquired the doctor.

"Two years, sir."

"Then you have lost two years," replied he, gravely.

HIS FIRST OFFENSE

Unless the misdemeanor is a serious, intentional mischief, a child should not be severely punished for the first offense. The nature of his wrong should be fully explained, and then if the child persists in his wrong-doing, means should be taken by which he will be made to remember.

SUMMARY PUNISHMENTS

Children should seldom be punished immediately upon the discovery of an offense. They have a right to be heard, and that right can not in justice be denied. It is granted even in a civil court to the most hardened criminal, and how much more should this privilege be given by a parent, who, during the child's most tender years, stands in the place of God to him.

Besides, it is worth while to spend time with the children, listening to their explanations, and explaining, in language which they can fully comprehend, the reason for every correction, reproof, and punishment.

Time should be given for the child to think, and realize the evil he has done, and the parent should take time for careful reflection and consideration. The child may be sent to his room, or set upon a chair till there is time to deal with the case carefully, tenderly, and intelligently.

ARBITRARY PUNISHMENTS

Punishments, reproofs, and instructions should not be arbitrary. Yet the parent's word should be law to the child, and he should be taught that obedience is the most important of all requirements. In fact, it is the sum total of nearly all requirements. But how impossible it is to

Victory belongs to the most persevering.
—Napoleon

teach a child to be self-reliant, sturdy, and intelligently responsible for his actions,—how impossible the effort to secure loving service and cooperation, if he must obey arbitrarily, act without reason, be reproved impulsively, and punished without knowing why.

Punishment should not be inflicted till the parent is certain that the child understands the nature of his wrong and the reason for the correction.

This is of greatest importance when it becomes necessary at times to correct with the rod. Under no conditions should a child be whipped until the reasons and necessity for it have been fully explained; and the explanation and whipping should be such as to win the love and confidence of the child, instead, as is too often the case, of arousing his anger and hatred.

We should place ourselves in the baby's shoes, see things through the boy's eyes, feel as the little daughter feels, and never wound the little hearts except to bless them.

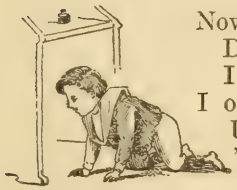
It is worth as much as these little jewels are worth to keep their confidence without questioning doubt, and to make them feel and know that their parents are the safest and best guides and counselors in all the world. Then draw the children to you by cords that can not be broken, remembering that love is lasting only when it works intelligently. Punishments administered in anger partake of the nature of a family quarrel, and serve to harden the tender heart, and alienate the child from his parents.

The bad habit that some parents fall into of contending with their children can not be too strongly condemned. It teaches them to answer back, and quarrel, and reduces the parent's discipline to the low level of a spar with words.

A child's reflections upon an arbitrary punishment are touchingly told by a writer in the *Century Magazine*:—

"Probably there is no influence so powerful as sympathy in awakening the affections of the human heart."

A "NAUGHTY BOY'S" SOLILOQUY



Now I lay me down to sleep—
Don't want to sleep, I want to think;
I didn't mean to spill that ink;
I only meant to softly creep
Under the desk and be a bear—
'Tain't 'bout the spanking that I care.

If she'd only let me splain an' tell
Just how it was an accident,
An' that I never truly meant,
An' never saw it till it fell.
I feel a whole lot worse'n her;
I'm sorry, an' I said I were.



I s'pose if I'd cried a lot
An' choked all up like sister does,
An' acted sadder than I wuz,
An' sobbed about the naughty spot,
She'd said, "He shan't be whipped, he shan't,"
An' kissed me—but somehow I can't.







But I don't think it's fair a bit.
Then when she talks an' talks at you,
An' you wait patient till she's through,
An' start to tell your side of it,
She says, "Now that'll do, my son;
I've heard enough," 'fore you begun.

'F I should die before I wake—
Maybe I ain't got any soul;
Maybe there's only just a hole
Where 't ought to be—there's such an ache
Down there somewhere. She seemed to think
That I just loved to spill that ink.



—*Ethel W. Kelly*

Every child walks into existence through the golden gate of love.—Henry Ward Beecher

TEACHING TRUTHFULNESS

Most children are naturally truthful. Falsehood is usually the fruit of education by example or punishment.

The bad example comes about as often from professedly truthful parents as from notoriously deceptive ones. It is not difficult to understand how every-day liars would teach their children by example to be untruthful; but how about the example of parents who would not intentionally tell a lie? It is a pity, but none the less a fact, that most parents are careless about keeping their word with their children. Rewards and punishments are promised with very little intention of fulfilling the promises, and the very fact that parents have a right to command seems to mean to many of them that they may hold their word lightly.

Children are quick to see the light regard that parents place upon their word, and learn to do the same. They know little of right and wrong, and the parents' practice is the child's law of good and evil.

Falsehood is also taught by the punishments themselves. Almost invariably those races of people whose children are the most notorious liars are those who are accustomed to deal out summary and cruel punishments. The sight of the rod and the angry look upon the parent's face will often frighten the child into untruthfulness. The confession of the fault or disobedience does not receive the proper consideration, and the child very naturally reasons that the punishment came as a result of this truth-telling, even though the parent may say it was for the naughty thing he did. Johnie makes a pencil mark on the wall, and he immediately confesses that he did it. Without explanation, his mother severely punishes him for his fault. He will be very likely to deny it next time.

"Abolish fear and you can accomplish whatever you wish."

TACTFUL PUNISHMENTS

Whenever possible, punishments should be such that the child can distinctly see that they are the natural result and outgrowth of his misdoing. Such punishments not only reprove, but they are also a means for instruction and amendment.

ILL MANNERS

If the little boy forgets to take off his hat on entering the house, require him to go out and in a dozen times, removing his hat properly each time.

If he persists in throwing his cap on the floor or on a chair, instead of hanging it in its proper place, he may be effectually cured of the bad habit by being required to go out and come in several times, putting his cap in its proper place each time.

If a child comes to the table untidy, overlook and do not serve him, while the others begin eating. When he asks for food, the parent can explain kindly that an untidy child can not be served.

Check the habit of interrupting conversation by giving no attention to the child till later, when others have ceased speaking. Or, prevent him altogether from saying what he wishes to. If the bad habit is persisted in when people call, he may be sent to his room to remain till the caller is gone.

QUARRELING

If children quarrel, separate them, and do not permit them to play together till they are glad to do so pleasantly.

"A certain dear, old-time mother used to give her children a dose of nauseous medicine when they quarreled, to sweeten their disposition, she said. A half teaspoonful of compound tincture of gentian, put into a little water, and administered with due solemnity, might have a soothing

No pleasure is comparable to the standing upon the vantage ground of truth.—Bacon

effect upon the temper even in these modern days. It is perfectly harmless, being only a bitter tonic."

BAD WORDS AND FALSEHOODS

If a child says bad words or tells falsehoods, cleanse his mouth with soap and water. Make a swab with absorbent cotton or a piece of clean cloth. Wash the mouth thoroughly, explaining while doing so how necessary it is that the little mouth should be cleaned after having such bad words in it.

SLAMMING DOORS

This is a favorite way with some children of expressing ill-temper. Call the child back, and tell him that doors should be closed quietly. Require him to open and close the door properly for ten minutes, or until he has learned to do it nicely. Tell him that he will need this practice every time he slams the door.

CARELESSNESS

Toys or other playthings left scattered about instead of being put away in their proper places may be confiscated, and put beyond reach for a few days. Children will soon learn that their belongings must be cared for, if they would keep them.

If a child carelessly breaks another's playthings, he should replace them, either with his own, or by purchasing the article with his own pennies that he has been saving for another cherished purpose.

Whenever work assigned has been neglected or done poorly, the child should be sent at once to do the work properly, or be required to do it during the play hour.

TARDINESS

When late to meals from their own neglect, deprive the children of some article of food that they particularly like.

Gentle words, quiet words, are after all the most powerful words.—Gladden

They should finish their meal when the other members of the family are ready to leave the table.

FORGETFULNESS

If errands are forgotten, the child should be sent again at once. A string may be tied on his finger to help him remember, or a band of white cotton may be put around his arm, having on it in large letters the word "remember," which he is required to wear for a day. This will help his memory wonderfully.

TRUANCY

When sent on an errand, if the child plays by the way, or is gone longer than he ought to be, do not allow him to have the good things sent for; or he may be kept in his room for as long a time as he kept his mother waiting for him.

TALEBEARING

A wise mother was once successful in breaking up a disagreeable habit in her children of frequent complaints and talebearing, by requiring that every complaint should be presented in writing. The trouble that this cost, and the time consumed in learning to spell the words and shape the sentences, succeeded in diverting their minds, and the complaint lost all its force. Another mother made a rule that no complaint should be presented within an hour of the offense. Of course it is needless to say that most complaints were forgotten. Efforts like this to break up the disagreeable habit of talebearing should not make the mother less watchful and attentive in seeing that children do not tyrannize over each other.

THE OFFENDING MEMBER

Very small children can be taught not to scratch or strike by covering the offending hand with a mitten or

Let the child's first lesson be obedience, and the second will be what thou wilt.—Benjamin Franklin

cloth, fastening it securely on, and keeping it there until the child understands that he must not do it. Or, the hands or feet may be tied securely together long enough to teach the same lesson. Sometimes a little whipping on the offending member and a talk about the necessity of punishing the "naughty hand," will be effective.

Such simple, logical punishments as these will often be more helpful in the training of a child than the too frequent use of the rod. There are times, however, when the rod must be used, but in the majority of cases other and much better means can be employed for correcting the little ones.

CROSS BOYS

On hot days, when my five-year-old boy comes in cross and peevish, and at war with the world in general, I remedy matters in this way: I put him in a bath-tub with tepid water, and give him a brush, some soap, and a few small corked bottles for boats. In about fifteen minutes or so he is ready to come out. I wipe him gently (no rubbing for a hot day), put on fresh clothes, and I have the cheeriest little lad in the world. He has been amused as well as benefited. Glass bottles would not be safe for every child. Small rubber balls or large wooden spools would answer as well as the bottles.—*Maria Parloa, in Ladies' Home Journal*

"Ah! what would the world be to us
If the children were no more?
We would dread the desert behind us
Worse than the dark before."



THE CRAMMING PROCESS

We teach the children Danish,
Trigonometry, and Spanish;
Fill their heads with old-time notions,
And the secrets of the oceans,
And the cuneiform inscriptions
From the land of the Egyptians;
Teach the date of every battle,
And the habits of the cattle,
With the date of every crowning;
Read the poetry of Browning;
Tell the acreage of Sweden;
And the serpent's wiles in Eden;
And the other things we teach 'em
 Make a mountain so immense
That we've not a moment left
 To teach them common sense.

—*London Standard*

In the above little poem the facts are well put. In the public-school system there is a growing tendency to introduce methods by which the common branches of education may be crowded into a child's head in the shortest length of time, so that he may be promoted to his high-school and college studies. Too often parents encourage this cramming process, fancying that the earlier the promotion, the more brilliant the child must be. This tendency is pernicious from every view-point.

THE DULL STUDENT

The dull, careless child, who naturally dislikes the confinement of the schoolroom, instead of being led into the fields of knowledge by some natural, winning method, is

"We are all children in the kindergarten of God."

forced ahead until he forms a deep-seated dislike for his school books, and drops them on the first opportunity.

THE BRILLIANT STUDENT

The studious child, who loves the school and his books, submits readily to the pressure, and buries himself in his studies from morning till night. His head develops, while his body keeps puny, and he is deficient in health and strength, and unable to turn his brilliant brain to any practical account.

But, viewing the question purely from the educational standpoint, this cramming process deprives the child of the most vital features in laying the foundation for an education. That system of instruction is wrong which magnifies advanced book-learning above the common branches, and cuts off that daily training which parents should give their children on the practical side of things which will become the chief business of their lives.

THOROUGH WORK IN FUNDAMENTALS

A child is recognized by all the world as well educated if he can read distinctly and intelligently, spell correctly, write a smooth, plain hand, and if he acquires a knowledge of the fundamental rules of arithmetic, a fairly good knowledge of the geography of the world and the history of his own country. But if he acquires all the languages, arts, and sciences of the schools, without a knowledge of the fundamentals above mentioned, he will forever be set down as an ignorant man.

PRACTICAL EDUCATION

The above statement applies equally well to a child's practical knowledge of common manual labor. A few years ago a wealthy cattle king died in Australia, who had, during his lifetime, acquired several million dollars by the

Reading is to the mind what exercise is to the body.
—Steele

management of an extensive, thrifty cattle business. Although he had acquired what was considered a very meager education, yet he employed scores of university men as servants in his business. At one time among his employees there were four graduates from Yale and two from Harvard.

Health, practical training, sound morals, and thorough instruction in elementary studies are the corner-stones of every good educational system.

THE CHILD'S READING

In selecting a child's reading, the line should be drawn between the good and the bad. A serious mistake is often made by separating arbitrarily between truth and fiction. Much that is true in this wicked world is the most debasing; while some imaginative incidents, stories, and allegories are the most elevating and beneficial.

INTELLIGENT SUPERVISION

Parents should select the reading for their children with the utmost care. The contents of every book they read should be known to parents. Liberal enough provision should be made to keep the children interested and occupied to a reasonable extent with the reading planned for them, so that the active little minds will not reach out with a hungry longing for the worthless story books of their playmates.

A BAD PRACTICE

The custom of children borrowing cheap novels and fairy tales from their playmates, and of making their own selection of books at the public library, is altogether a pernicious practice. This mental chaff and rubbish will sooner or later prey upon their morals. Young novel readers almost invariably lead an unnatural life of excitement, which manifests itself in many evil tendencies.

The only jewel which you can carry beyond the grave is wisdom.—James Alfred Landford

THE WEAKNESS OF A NEGATIVE SYSTEM

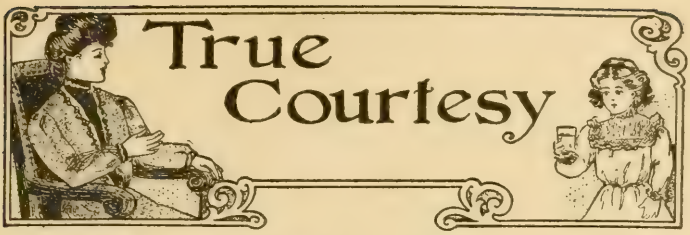
One of the most certain ways by which children are led to novel reading is by the negative system of controlling their reading. They are positively forbidden even to look at books of a certain class, but at the same time nothing is provided to satisfy the honest literary hunger of their little hearts. Under such restrictions, children too often secure bad books and read "on the sly," and really go to injurious lengths, far beyond where their unrestrained desires would have led them.

A BULWARK OF GOOD TASTE

In this evil world, sin is made most enticing. Bad books are often more fascinating than good ones, and the unguided child is almost certain to choose them. As soon as the child can begin to comprehend and appreciate what is read to him, he should be led into the most interesting and beneficial literary treasures which can be provided for him. Then when his taste is developed so that he can appreciate and enjoy the good, the true, and the beautiful, he will have a bulwark of good taste and principles built up around him, which will naturally shut him out from much of the world's sin and folly.

Little children, you must seek
 Rather to be good than wise,
For the thoughts you do not speak
 Shine out in your cheeks and eyes.
Cherish what is good, and drive
 Evil thoughts and feelings far;
For, as sure as you're alive,
 You will show for what you are.

—*Alice Carey*



PRACTICAL LOVE

Love is the mainspring of true courtesy. The child can hardly be rude to one he loves, even though he may be awkward.

Conventional rules of etiquette and true courtesy are often wide apart. Conventionality led certain guests of the Prince of Wales, now King Edward, to deride an uneducated though esteemed friend of the prince for mistaking his finger-bowl for a drinking glass. True courtesy led the prince to reprove his other guests, and set his friend at ease, by drinking from his own finger-bowl. Conventionality led a district school-teacher to take a silver knife and fork with her when she "boarded around" in the district. True courtesy would have led her to appreciate heartily all the sincere efforts of the country folk to entertain her, even though they might not live up to her ideas of society manners.

True courtesy can not be hung onto a child like ribbons and ornaments. It must be taught to the heart, and work itself out in its own sweet way, with only such instruction from the parent as will help to train and guide it.

POLITE ANSWERS

The abrupt, "Yes," and, "No," so commonly heard, mean ignorance of culture and true courtesy, and indicate beyond doubt an unpolished home life.

The polite, "Yes, ma'am," "No, ma'am," "Yes, sir," "No, sir," the gentle, "Yes, mama," or, "No, papa," "Yes, uncle," or, "No, auntie," are indications of good training, even though it may be partially hidden by poverty.

With hat in hand one gets on in the world.
—German Proverb

GENERAL DEPORTMENT

Children should be taught with the most painstaking care the common rules of etiquette. The following are some of the most important ones:—

Respectful language under all circumstances.

Polite answers to questions.

A quiet reserve in the presence of callers.

Not to lead the conversation in a bold way with their seniors.

To respect most tenderly old age and all infirmities.

To show respect for sacred things and sacred places.

Not to be boisterous in the house.

Not to make themselves conspicuous in public.

Not to linger about the entrance of any public gathering place when people are passing in or out.

Not to pass in front of people unless necessary, and then to say, "I beg your pardon," or "Please excuse me."

TABLE MANNERS

When the child is grown, and goes out from the home circle, there is little danger that he will be unable to observe proper table manners in any society if he has been taught the simple rules of table etiquette during childhood. The essentials are:—

To sit at the table in an upright position; not to lean back in a lazy manner, nor to put his arms or elbows on the table.

To hold and to use properly his knife, fork, spoon, napkin, glass, etc.

Not to put too much food into the mouth at once, and to masticate slowly and noiselessly, and with the lips closed.

To wipe the lips with a napkin before drinking from a glass.

Birth's gude, but breedin's better.
—Scotch Proverb

Not to mess the food on his plate, and to eat what is given him without adverse comment.

Not to ask for food while others are being served, and to respond promptly and politely when asked concerning his choice of food.

Never to come to the table with soiled hands or face, uncombed hair, or with the clothing in disorder

Encourage children to engage in conversation, but with respect for those who are older.

They should be taught to respond quickly, but not to lead in conversation.

Instruction in table manners should be given, as far as possible, away from the table; but when instruction is necessary at the table, it should be given quietly and in such a way as to cause as little embarrassment as possible.

The last, but most important, of these suggestions is that all rules of etiquette must be taught by example as well as by precept.

IN PRAISE OF COURTESY

Politeness has been compared to an air cushion, which, although there is apparently nothing it it, eases our jolts wonderfully.—*George L. Carey*

Politeness has been well defined as benevolence in small things.—*Abel Stevens*

Life is not so short but there is always time enough for courtesy.—*Emerson*

Manners are not idle, but the fruit
Of noble nature and of loyal mind.—*Tennyson*

The foundation of culture, as of character, is at last the moral sentiment.—*Matthew Arnold*

Courtesy begets courtesy; it is a passport to popularity. —*Rev. J. E. C. Welldon*

We can not always oblige, but we can always speak obligingly.—Voltaire

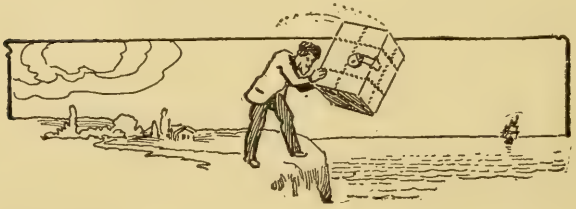
TWO BOXES



"If I knew the box where the smiles are kept,
No matter how large the key,
Or strong the bolt, I would try so hard
'Twould open, I know, for me.
Then over the land and sea, broadcast,
I'd scatter the smiles to play,
That the children's faces might hold them fast
For many and many a day.



"If I knew the box that was large enough
To hold all the frowns I meet,
I would like to gather them every one,
From nursery, school, and street.
Then, folding, and holding, I'd pack them in,
And, turning the monster key,
I'd hire a giant to drop the box
To the depths of the deep, deep sea."





CORNER-STONES

"O strong, upwelling prayers of faith,
From inmost founts of life ye start;
The Spirit's pulse, the vital breath
Of soul and heart."

The corner-stones of the family altar are love, order, mutual confidence, and personal responsibility. How many family altars are broken and falling down for lack of these strong corners! Love for God, for each other, and for prayer are strangely missing. The children are allowed to whisper, play, sit on the floor, lie on the couch, or loll about as they please, and older ones come before God in this sacred family gathering-place in any kind of slouchy, dirty dress, and with a restless air of nervous haste. But little faith or confidence in God are manifested. Father and mother each doubt the piety of the other, and the children doubt the piety of both; and because of this strained feeling, and a desire to be through with worship as soon as possible, the father takes upon himself all the burden of the family devotion, by reading a "short psalm" and "making" a prayer. Is it strange that children reared in such an atmosphere learn to treat religion lightly from seeing daily this rude interpretation of it?

A BINDING CORD

But conducted as it should be, the family altar is a mighty factor in the making of a home,—a spiritual table where the bread of life is daily eaten, without haste, and where all the members grow into strength, nearer to God, and nearer to each other.

Let parents, then, bequeath to their children, not riches, but the spirit of reverence.—Plato

This is the one place of all others where the family circle is complete. Here the members can look into each other's faces, speak tender words of comfort and encouragement, sing the good old songs, and read together the words of God. Here hearts touch each other, and beat in unison and love. When family ties are woven, closer and closer, with a binding strength like this, such cords will hold in the far-off years, even though the members may be scattered in many lands.

AN OBJECT-LESSON

Around the altar of prayer the children get their first impressions of the importance of prayer, and the value and genuineness of the religion of Jesus Christ. How much, then, is involved in the faithfulness, promptness, and regularity of parents in the observance of this daily privilege! If the hour of prayer is hurried through with unseemly haste, or lightly set aside for pressing secular duties, the children's estimate of prayer and religion will be formed accordingly.

ORDER AND DEPORTMENT

If worship is held morning and evening at a regular time, the children will soon learn to expect it. They should be taught to be in their places at the proper time, with clean hands and faces, without being "rounded up" and admonished twice every day. The secret of success in this effort rests in beginning to teach the child the right way when he is very young, so that he may never know that any other way is ever admissible.

Each child, particularly when young, should have his own proper place and chair, except as rearrangements may be made from time to time in tender recognition of the children's wishes.

This is not the time for children to be held on any-

Hold diligent converse with thy children. Have them morning and evening around thee.—Anon.

body's knee, nor should they be allowed to bunch together on the couch or elsewhere. There is too much temptation to play and lounge about under such arrangements. Playthings should be put away, all should give attention, with hands and feet in the proper place, and, while showing



Worship in Song

perfect ease and comfort and joy, yet each should recognize that order and respect are due to sacred things.

LOVE, TACT, CONFIDENCE

This is the time to throw off all stiffness and cold restraint; or, rather, it is not the proper time and place to put them on. All hearts should blend in perfect love and confidence, which cast out fear. Special temptations may be mentioned, verses from the Bible may be read to meet these temptations, or a song may be sung that will give the help needed by some tried or tempted one. Talk

Cast thy bread upon the waters; for thou shalt find it after many days.—Eccl. 11: 1

freely with the children, and help them to see that the family altar is a place for finding comfort, help, and forgiveness of sins, as also joy and freedom from their little cares and troubles. To do this the nicest tact and wisdom are needed.

LET ALL TAKE PART

Pass around the song books and the Bibles, and help the younger ones find their places. Teach all to sing, and be sure that they do the best they can. As soon as they are able to read, let them join in the reading around, and those who can not read can soon learn to follow the others, and thus their attention will be secured, and they will feel that they are taking part in the worship, as indeed they are.

THE A B C OF PRAYER

The children may be taught to pray at the family altar, and find it a privilege and joy, long before they have been really converted to God. Prayer is much easier if learned from the A B C at the time in life when the A B C of everything is being learned.

Frequently at morning worship it may be proper for only one adult to pray aloud. Such prayers may be closed with the Lord's prayer, in which all can join. The one praying may introduce it with some such fitting words as these, "Let Thy blessing rest upon us all while we join in praying as Thou hast taught us, 'Our Father who art in heaven,' " etc.

In the evening, when there is more time, all the members of the family should have an opportunity to pray. The children who are too young to express their wants independently in prayer, should be encouraged to repeat the little prayers they have been taught to say at their bedsides. Little by little they will be able to add to these

Remember now thy Creator in the days of thy youth, while the evil days come not.—Eccl. 12: 1

in a natural way by praying for some new friend or to be kept from the temptation into which they are most liable to fall. Parents who have never tried this A B C method will be surprised and delighted to find how the children enjoy it, and develop the ability to construct their own prayers intelligently. By thus hearing their own voices in public prayer, fear is soon cast away, and they will grow in the knowledge and gifts of prayer as the years go by.

SABBATH WORSHIP

Sabbath should bring special privileges to the children at the hour of worship. By such means they learn to love the coming of the Sabbath day, and feel a delight, just as we all should do, when the sacred hours arrive. A special Sabbath song, a children's song, verses repeated all around, a psalm repeated in concert,—such extra features will give an added joy, and help to make the Sabbath a pleasure instead of a burden.

"THE PIVOT OF PIETY"

"The pivot of piety is prayer." So also it is the pivot of home and all its endearing ties. As the years revolve, the centrifugal forces of evil naturally hurl the lambs of the fold off into the sins and darkness of this cold world of ours. Prayer is the only pivot that will hold against these powers of evil. The verses most often recited, the psalms committed to memory, and the familiar hymns will become more and more precious as the years go by; and even the wayward, wandering boy in the hour of temptation will remember snatches from a favorite psalm or song, and recall the sound of his own name in mother's prayer; and these ever-binding cords will, perchance, draw his careless, wandering feet back from the treacherous, slippery paths of sin.

Suffer little children to come unto Me, and forbid them not; for of such is the kingdom of God.—Jesus

A BEAUTIFUL ILLUSTRATION

We know a family who, from the time their altar was erected, have never failed to sing one special, dedicated hymn at the opening of the Sabbath hours; and now, although they are scattered in two continents, and all but one of the children are married and have homes of their own, still, wherever they are, on land or sea, as the Sabbath twilight approaches, each member sings the old, familiar song, and remembers in heart thoughts and words of prayer the members of the family circle. Thus in spirit, however widely scattered, they have a common meeting-place.

Parents, make the pivot strong by daily faithfulness at family worship. Rear up the four corners of the altar with intelligent workmanship, and your reward in the faithfulness of your children will be great.

A CHILD'S PRAYER

Blessed Saviour, listen now,
As before Thy throne I bow;
Look upon me, Lord, and smile;
Cleanse my heart from sin and guile.

Give me, Jesus, every day,
Strength to put each sin away;
Make me gentle, good, and mild;
I would be Thy little child.

Fill my heart with perfect love
For the God that reigns above;
Pardon all my sins, and then
Let me dwell with Thee. Amen.

—Mrs. L. D. A. Stuttle



VIGILANCE

Be very vigilant over thy child in the April of his understanding, lest the frost of May nip his blossoms. While he is a tender twig, straighten him; while he is a new vessel, season him; such as thou makest him, such commonly shalt thou find him. Let his first lesson be obedience, and his second shall be what thou wilt. Give him education in good letters, to the utmost of thy ability and his capacity. Season his youth with the love of his Creator, and make the fear of his God the beginning of his knowledge. If he have an active spirit, rather rectify than curb it; but reckon idleness among his chiefest faults. As his judgment ripens, observe his inclination, and tender him a calling that shall not cross it. Forced marriages and callings seldom prosper. Show him both the mow and the plough; and prepare him as well for the danger of the skirmish, as possess him with the honor of the prize.—*F. Charles*



How Much Are They Worth



THE COST OF A CHILD

"How much that little girl costs!" said a mother, as

The formative period of building character for eternity is in the nursery.—Anon.

she and I passed a little girl leaning against an iron railing, eagerly watching some boys playing at marbles.

"Costs!" I said; "what, her shoes and socks, her plaid dress and gay ribbons, her hat and feathers, her——?"

"That is her least cost," replied the mother; "nor was I thinking of that; but what pain and suffering she costs; what fatigue and watching; how much of a mother's anxiety; how much of a father's toil; how many prayers; how many fears; how many yearnings; how much patience; how much responsibility; how much instruction; how much correction; how much love; how much sorrow; how many teachers; how many sermons; how many Sabbaths! She costs, too, a dying Redeemer.—*Cameron*

CHARMS OF CHILDREN

I am fond of children. I think them the poetry of the world—the fresh flowers of our hearts and homes; little conjurers, with their "natural magic," evoking by their spells what delights and enriches all ranks, and equalizes the different classes of society. Often as they bring with them anxieties and cares, and live to occasion sorrow and grief, we should get on very badly without them.—*T. Binney*

WISE PARENTS

Every father of a large family—and, being an old-fashioned man, I believe in large families—knows that if he is to do well by his children, he must try to do well by himself. Now haven't you in your own experience known men—and, I am sorry to say, even more often women—who think that they are doing a favor to their children when they shield them from any effort; when they let the girls sit at ease and read, while the mother does all the housework? Don't you know cases like that? I do, yes. When a boy will be brought up to be very ornamental

The hand that rocks the cradle rules the world.
—John Gray

and not useful. Don't you know that, too?—Exactly. Now those are not good fathers and mothers. They are foolish fathers and mothers. They are not being kind; they are simply silly.—*Theodore Roosevelt*

A QUIET HOUSE

"Study to be quiet, is a precept whose application to daily life every mother should teach her children. A home should be a quiet, restful place, and unnecessary noise should not be permitted in it. A good romp occasionally does not come under this head. Active, healthy children must work off their surplus energy in some legitimate way, and if for any reason they are debarred from outdoor exercise for a time, they must be allowed a little noisy play in the house. Loud talking, shouting, slamming doors, tramping noisily through halls and up and down stairs, should be prohibited. These noises serve no good end, and are extremely trying to the nerves of the older ones, who have a right to a quiet house."

A WORD OF PRAISE

Give the children a word of praise, particularly when it is evident that they are trying to do right. We all like to feel that our efforts are appreciated, and children are benefited quite as much by a few proper words of praise and encouragement as are those who are older and wiser. They cost nothing, but their value is beyond estimate.

TOO MUCH SYMPATHY

Do not express too much sympathy for the children when they meet with some little injury or trifling disappointment. Teach them to bear these things bravely as a part of the day's experience. "Do not cry. Try to be mama's brave little boy, and the pain will soon be over;" "Never mind, darling, it will be all well to-morrow," is

Children are the hands by which we take hold of heaven.
—Henry Ward Beecher

much more bracing and soothing to the hurt feelings of the little sufferer, than the pity that causes him to feel that he is much injured. Any complaint of pain or discomfort should not be passed by without notice. Something serious might be the trouble. The mother should always exercise a tender watchfulness to discover when anything is amiss with the little ones. If the cause of their trouble is obvious, and only temporary, they should be taught to bear the pain of mind or body as cheerfully as possible, and to make the least instead of the most of it.

To encourage bravery in a tactful way is the best method of showing sympathy. In doing this be sure that the true kind of sympathy is shown. Be careful not to turn the child rudely away, thus leaving an impression that you are bothered by his troubles. "I am busy, Johnie; I can't help it," said the father, writing away when the little fellow hurt his finger. "Yes, you could—you might have said, 'Oh!'" sobbed Johnie. Do not forget to say, "Oh!" at the proper time, and thus assure the little ones that they have your true sympathy. A kind word in due season will save many heartaches.

RESPECT FOR CHILDREN

About three hundred and fifty years ago there lived in Germany a worthy schoolmaster whose name was John Trebonius. He was a philosopher and a scholar, and withal somewhat eccentric in his habits; but the world then needed originality, so that this detracted nothing from his worth. It is not much—more is the pity—that history has recorded of this man; but one tradition of him has descended to our times, which furnishes us with no mean index to his real character and principles. It is said of him that he never entered his school without being affected with the most profound reverence. Nothing could induce

Talk not of wasted affection,
Affection never was wasted.—Longfellow

him to appear with covered head before his boys. "Who can tell," said he, "what may yet arise from amid these youths? There may be among them those who may hereafter be learned doctors, sage legislators, or princes of the empire." Far-seeing teacher that! Right well, too, did he merit the honor that God put upon him of being the instructor of Martin Luther, "the solitary monk that shook the world."—*C. M. Merry*

CHILDREN A BLESSING

I remember a great man coming into my house at Waltham, and, seeing all my children standing in the order of their age and stature, said, "These are they that make rich men poor." But he straightway received this answer, "Nay, my lord; these are they that make a poor man rich; for there is not one of these whom we would part with for all your wealth."—*Bishop Hall*

PARENTS RESPONSIBLE

"Many a man is in the penitentiary to-day who—well, probably he deserves to be there, but it is impossible to avoid a lurking feeling that his parents ought to be in his place. When people permit their children to grow up about as they will, with the street corners for their principal school and vice as their educator, the law may not recognize their grim responsibility for whatever may result, but it is theirs, nevertheless. The gallows trap has swung for many a man whose father or mother, or both, should have stood by his side."

NOTHIN' DOIN'

"I want to see the boss of the house," said the pedler to Mrs. D., who had answered the ring.

"I'm sorry," she replied, as she gently closed the door, "but the baby is asleep just now."—*Our Dumb Animals*

If you make children happy now, you will make them happy twenty years hence by the memory of it.—Sydney Smith

TRUST THE CHILDREN

"Make it easy for a timid child to tell the truth by trusting him. Never doubt his word unless it is absolutely certain he is telling a falsehood. Punish by showing the sorrow that is felt at his fall; refuse the good-night kiss, the bedtime story, until he is repentant. Talk to him until he feels how serious a matter it is to forfeit the confidence of those about him.

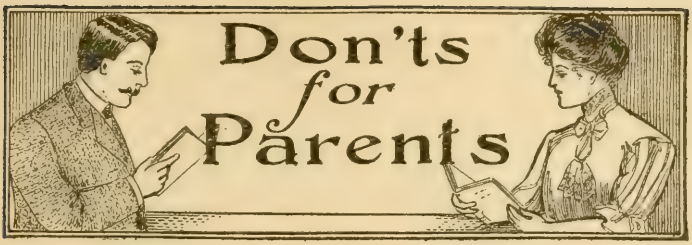
"A quiet, serious talk at bedtime on the impossibility of trusting a careless person, and the shame and loss carelessness may cause in later life, may do good."

ONLY BEGINNING

Only beginning the journey,
Many a mile to go—
Little feet how they patter,
Wandering to and fro!
Tottering now and falling,
Eyes that are going to cry;
Kisses and plenty of love words,
Willing again to try.

Father of all, O guide them,
The pattering little feet,
While they are treading the uphill road,
Braving the dust and heat.
Aid them when they grow weary,
Keep them in pathway blest,
And when the journey is ended,
Save them, O give them rest.

—George Cooper



1. Don't train your baby to cry for everything in sight, or he will soon learn the value of tears.

2. Don't neglect early training in orderly habits.

3. Don't allow demonstrations of temper. Screaming, kicking, and striking need never be struggled with if "nipped in the bud."

4. Don't allow "whining" or "teasing."

5. Don't fail to express sympathy when the child is in trouble. Sympathy is soothing.

6. Don't tolerate talebearing. It breeds selfishness.

7. Don't criticize and punish first, and investigate later. Injustice inflicts a deep wound.

8. Don't offer bribes. Teach obedience from principle.

9. Don't push the little ones from you for fear of their soiling a pretty gown. Sometime you may long for their caresses.

10. Don't fail to fulfil all promises. This will instil confidence.

11. Don't give opportunity for the children to question your justice.

12. Don't fail to be kind and considerate. Kindness is a mighty conqueror.

13. Don't neglect forming the acquaintance of your children's playmates and companions.

14. Don't try to frighten your children into obedience by telling them ghostly tales, or shutting them up in a dark place.

15. Don't fail to require good manners at the table. Habits early formed will stay by children through life.

Don't forget that God will hold parents responsible to the trust of polishing these infant jewels.

16. Don't use language that you would blush to hear your children repeat.

17. Don't manifest partiality toward any one of your children. They are keen observers.

18. Don't look for polite answers from your little ones if you fail in this respect. They are excellent imitators.

19. Don't treat your girls and boys in such a careless way that they will bestow their confidence elsewhere. When you lose that, you lose your stronghold.

20. Don't put everything up out of the reach of the baby finger. An understanding that some things are not to be touched will be a good lesson in self-control.

21. Don't turn a child off with an evasive answer when he is seeking special information. He will get it elsewhere.

22. Don't deceive yourself by thinking that your children will grow up to be gentlemen and ladies unless you treat them as such.

23. Don't frown and scold the children continually and expect them to be sweet-tempered

24. Don't feel above making an apology if you have wronged your child. This is one way of establishing confidence.

25. Don't permit your children to stay with their playmates overnight. Be fearful of their learning lessons of impurity.

26. Don't fail to instil honor and truthfulness into their young hearts, by example as well as by precept. To do this under all circumstances requires courage, but it pays.

SECTION SIX

The Home Treatment of Disease

The Way to Health

1

Act immediately when nature gives her first warning of the presence of disease in the system.

2

Use rational, natural means of restoration instead of adding to the poisons of the body by the use of drugs.

3

Adopt regular habits, a plain, simple diet, daily exercise, an out-of-door life, and be temperate in all things.

4

Forget self, think of others, seek some active, interesting employment, trust in God, and do not fear.



NATURAL AGENCIES

It is the purpose of this chapter to give only a few plain directions for giving such baths and other simple treatments as may be applied in the home without the aid of a nurse or a physician.

By careful study and observation, parents may readily learn how to treat and ward off disease successfully in its early stages. In the common forces and products of nature procurable in every home, there is a great storehouse filled with curative agents. By making intelligent use of these, severe sickness and heavy expense may usually be avoided.

In cases of serious illness, however, persons unskilled in the treatment of disease should not rely too much upon these home treatments without the counsel of a physician.

HEAT AND COLD

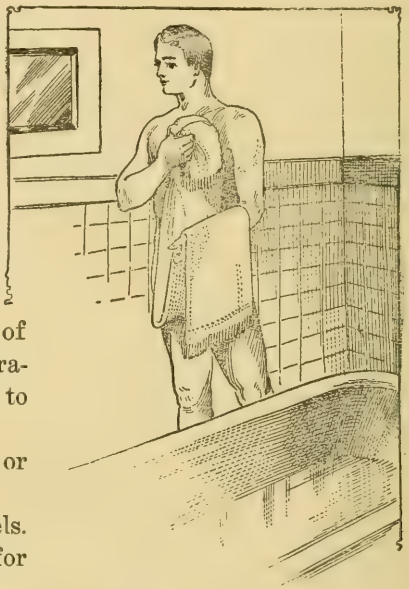
Heat is the king of all remedies for the relief of pain. It is a natural antidote, and may be applied to any part of the body by means of hot-water bags. If these are not at hand, a cloth bag may be made and filled with salt, ashes, sand, corn-meal, or any other substance that will retain heat. Whichever substance is used for filling should be well heated in the oven, then placed in the bag and applied to the seat of pain. The bags should be only about half filled. Two bags are better than one, so one can be heating in the oven while the other is being applied.

Glass bottles with good stoppers may be filled with hot water and used in place of rubber bags. Even bricks, flat-irons, or logs of wood, heated and wrapped with flannel, may be used.

Water treatments were employed by the Egyptians, Hebrews, Greeks, and other nations centuries before Christ.

The good results in relieving pain, secured by the use of the articles named, and also from poultices, come more from the heat they carry so effectively than from any remedial power they may contain in themselves.

In many cases cold may give relief as well as heat; and where each has failed, when used alone, applications of heat and cold alternately may be used successfully.



A Good Morning Exercise and Tonic

SPONGE BATH

Materials

A small quantity of tepid water at a temperature of from seventy-five to ninety-five degrees.

A soft wash-cloth or sponge.

Two soft bath towels. Turkish towels are best for this purpose.

Directions

Begin with the face, hair, neck, and shoulders. Do not wet the whole body at once. After bathing the upper portion of the body down to the waist, dry with a towel, and then rub vigorously every inch of the surface with the bare hand, to induce an active circulation. The rubbing and chafing should be kept up till the skin glows with a warm reaction. This bath is agreeable in proportion to the vigorous activity with which it is taken.

Continue in the same way with the lower portion of

"According to Pliny, the bath was almost the exclusive method of treatment employed in Rome during five centuries."

the body, returning occasionally to rub the upper parts, to prevent a chilly reaction.

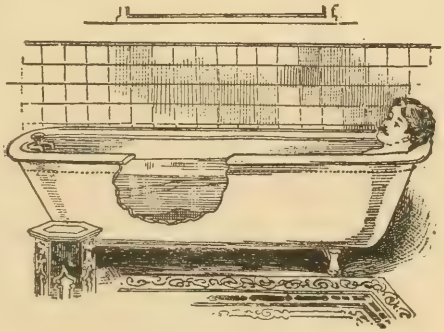


A Bath for the Sick

Special care should be taken to avoid a chill. It may be necessary for persons who are not strong to keep a portion of the body covered while other parts are being bathed.

SPONGE BATH IN BED

This bath may be given very satisfactorily to the sick while in bed without disturbing or tiring them seriously. Only a small portion of the body should be uncovered at a time. The bathing, drying, and rubbing may be done with such tenderness that the bath will prove soothing and restful even to a person who is very ill.



A Necessary Luxury

FULL BATH

Materials

A large bath-tub, five and one-half or six feet long.

Water enough to cover the body entirely, usually at about the same temperature as the body.

Baths should not be taken within an hour or two after meals, nor within half an hour before eating.

A wash-cloth or sponge and a body-brush.

Two good. coarse towels.

Directions

The water should not be very hot or very cold.

If a hot or cold bath is desired, it is best to begin with the water comfortably warm, and then change the temperature by gradually adding hot or cold water.

Rub the body vigorously with the sponge or cloth and the body-brush, and knead the muscles and bowels.

Before leaving the bath, turn on the cold water, and reduce the temperature as much as possible without making it unpleasant.

Dry the body thoroughly, using every necessary precaution to prevent a chill.

FULL NEUTRAL BATH

Materials

A large, full-length bath-tub.

Water, at a temperature of about ninety-five degrees, sufficient to cover the body.

Two bath towels.

Directions

The bath is generally of most value in the evening just before retiring.

If the mind or body are overwearied with excessive labor, this bath is restful and promotes sleep.

Rest quietly in the bath for from fifteen to thirty minutes; then cool the bath a little with cold water, and dry the body without excessive rubbing.

This is one of the most beneficial, enjoyable, and easily taken of all baths, and is especially good for brain workers who are unable to sleep well.

If the room and bath are comfortable, an hour or two of most refreshing sleep can often be enjoyed in this bath.

Simple treatments in hydrotherapy assist nature in eliminating poisons from the system.

VAPOR BATH

Materials

A cane-seated chair, with a towel spread over the bottom.

Two or three large woolen blankets, or one woolen blanket and two quilts.

A pan of hot water.

Three or four hot bricks or stones.

Facilities necessary for a cool shower bath, plunge bath, or hand bath.

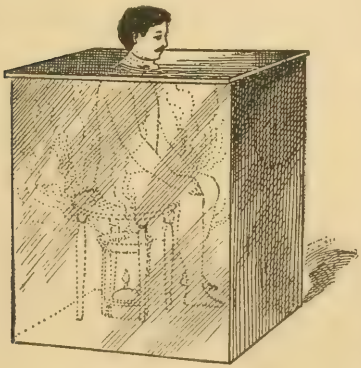


Steam Bath in Blankets

Directions

Seat the patient in a chair, and put the blankets around him, pinning them closely about the neck, and letting them fall on the floor so as to keep in the steam.

Lift the edge of the blankets, and place the pan of hot water under the chair; then place a hot brick or stone in the water, and continue to do this at short intervals till the hot vapor has started a good perspiration.



Folding Portable Cabinet

The time of the bath should be from twenty to thirty minutes.

Immediately after removing the blankets, give the patient a cool shower, plunge, or hand bath, to

Look to your health if you have it. Praise God and value it next to a good conscience.—Isaak Walton

close the pores, and follow this with a good, vigorous rub.

A more modern arrangement, and one which most families can secure, is the bath cabinet. It is a square closed cabinet, as shown in the diagram on the preceding page, and an alcohol lamp and a dish of water take the place of the pan of hot water and the hot bricks.

SITZ BATH

This is one of the most valuable and powerful of all baths in the treatment of disease. It may be given in several different ways, and frequently it should be done under the direction of a competent physician or nurse.



Sitz Bath and Foot Bath Combined

Materials

A sitz bath-tub made for the purpose is the best. If this is not available, a common wash-tub may be used by tipping it a little and placing a board in the tub to support the patient's back.

Water, at a temperature of about ninety degrees, sufficient to fully cover the hips.

A blanket to cover the patient.

A pan or bucket for a foot bath at the same time.

Facilities for a cool shower, plunge, or hand bath.

Directions

Seat the patient in the bath, cover him closely with the blanket, and place his feet in a foot bath of about the same temperature as the sitz bath.

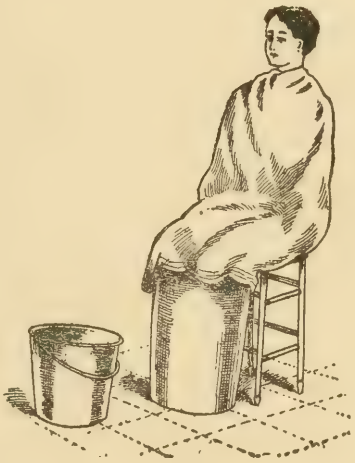
"The exalting influence of the Spirit of God is the best restorative for the sick."

Keep the head cool with a wet cloth or ice compress, and give cold water to drink.

Usually this bath should not be continued more than thirty minutes, except under the instructions of a nurse or a physician.

The temperature may be raised or lowered by adding hot or cold water.

The bath should be followed immediately by a cool shower, plunge, or hand bath, and a vigorous rubbing, using great care to prevent a chill.



Hot Leg Bath

LEG BATH

For this bath, a vessel should be provided deep enough to permit the patient to stand with the water half way up on his thighs. The water may be any temperature desired. Its chief purpose is to draw the blood away from the vital organs of the body, and to increase the circulation of the blood in the extremities.



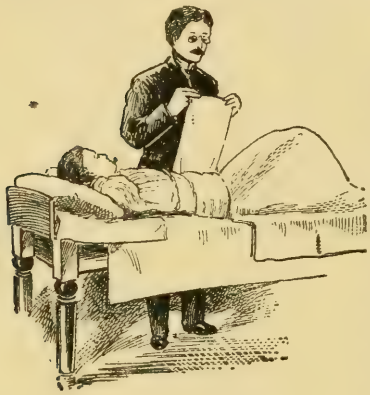
Hot Foot Bath

FOOT BATH

The foot bath is like the leg bath in that its chief purpose is to increase the circulation of blood in the extremities.

" Among the Spartans of ancient Greece, bathing was made obligatory by law."

If the water is warm, there should be enough, at least, to cover the ankles. If it is cold, only enough should be used to wet the feet. Whether warm or cold water is used, the feet should be rubbed vigorously.



Applying the Wet Girdle

WET GIRDLE

Take a coarse piece of toweling or linen or cotton cloth about three yards long. Dip one-half of it in cold water, and so wrap it about the body that two thicknesses will pass over the abdomen. Pin this cloth securely, and cover with a woolen wrap, being careful that all the wet edges are well covered so as not to wet the patient's clothing. This is harmless, a potent remedy for many ills.

COMPRESSES

A compress is a wet cloth applied to any part of the body.

If the object of the compress is to cool the part, the cloth should be wet with cold water and changed every few minutes. If it is to draw the heat to that part, it should be wet with hot water and well covered with a woolen cloth, and should be left on several hours, or perhaps overnight.

FOMENTATIONS

Materials

Two or three quarts of boiling water in a pail.

Two flannel cloths; a quarter of a single flannel blanket is about the right size.

"Water is more nearly a panacea for all human ill than any other known agent."

If flannel cloths are not at hand, two turkish bath towels may be used instead.

Dry cloth or towel to cover over the fomentation cloth.

Directions

Fold the cloth so it will be four thicknesses. Holding on to the ends, dip it into the hot water, then wring. By keeping the ends of the cloth dry, it can be wrung out much hotter than it can be borne on the bare flesh. Fold it in a dry cloth before applying it, and the heat will be retained for a much longer time.



Fomentations

If convenient, place the pail containing the hot water over a fire, so that the fomentation cloth can be reheated.

When alternate hot and cold is required, allow the hot cloth to remain on for about five minutes, then cool either by dipping the hand into a basin of water and rubbing over the surface, by applying a cool compress for two or three minutes, or by rubbing the fomented part quickly with a piece of ice.

If prolonged heat is desired, it may be applied by means of rubber bags, or glass bottles filled with hot water, hot bricks, etc. When these are used, a damp cloth should be placed between them and the flesh, then the whole covered with a dry cloth.

Immediately after removing the hot application, bathe the fomented surface with cool water and dry quickly.

"The sun's rays have been utilized in the treatment of the sick from the most ancient times."

OIL RUB

An oil rub is best given after a warm bath. Pure vaseline or any fresh vegetable oil may be used. After drying the patient, apply the oil, rubbing gently so as not to induce perspiration, removing all the surplus oil with a soft towel.

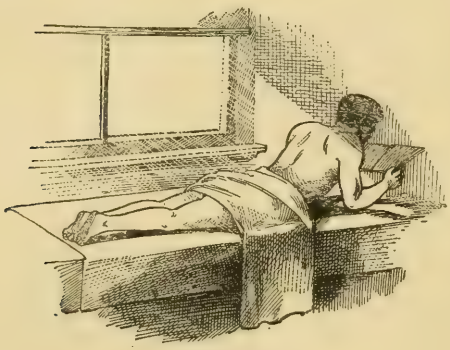
An oil rub is a good preventive against colds. If the person is weak, or reacts slowly, or if the skin is dry through inactivity of the glands, or from frequent bathing, an oil rub is especially beneficial.



An Oil Rub in Bed

SUN-BATH

The sun is nature's greatest life-giving agent, and its powerful rays may be employed successfully in maintaining health, and in the treatment of disease.



Healing Rays

The value of sun-baths is generally recognized by physicians, and they are largely employed in sanitariums and other health resorts.

The best sun-bath is obtained by exercise in the sun-

Procrastination is the thief of health.

shine. For the treatment of the sick, any of the following means may be readily and successfully used:—

1. The bed or cot may be placed before a window where the rays of the sun can fall directly upon the whole or a part of the body.

2. The patient may recline upon a cot in the open sunshine, sheltered from the wind.

3. If sun baths are required frequently at home, a portion of the veranda on the sunny side of the house may be enclosed with glass windows for this purpose.

4. An attic room with windows in the roof, if properly ventilated, is also suitable and convenient.

While taking this bath, the head should be protected from the direct rays of the sun.

The person's condition will determine the length of time he should remain in this bath. Some can remain comfortably ten minutes; others may remain for an hour or more, sometimes falling asleep.

A sponge bath following is refreshing to the patient.



Giving a Salt Glow

SALT GLOW

This is beneficial to either the sick or well. It consists of a brisk rubbing of the whole surface of the body with medium fine salt. It is invigorating, and excites the skin to greater activity.

The salt should be moistened before it is applied to the skin.

Many of the most valuable things we enjoy were discovered by men who at first were believed to be cranks.

If this bath is to be given to a person while lying down, remove the clothing, cover the bed with a sheet, and place him upon it. Draw the sheet over the patient, and expose only one part at a time. After rubbing the entire surface of the body with the salt, remove the adhering particles by means of a spray or shower bath, if available; if not, remove by sponging, and dry quickly.

If the patient is strong enough, this treatment can be given either sitting or standing. The room should be warm enough to prevent chilling.

ENEMA

Materials

Syphon or fountain syringe.

One to three quarts of water.

Directions

The enema should be taken slowly, and the water retained for several minutes if possible. If convenient, take it in a reclining position.

If the enema is to relieve constipation, the water should be warm. A weak suds made from pure castile soap is often more beneficial than pure water. While the water is retained in the bowels, they should be thoroughly kneaded. If but little water can be retained at one time, repeat the treatment until the bowels are thoroughly emptied.

In cases of fever, large enemas of cold water should be used. This is one of the most effective means of reducing temperature. It gives great relief to the patient, and induces rest and sleep.

The enema should not be used habitually to produce a movement of the bowels, or they will become inactive. Regularity in the time of relieving the bowels is one of the best means to be employed in keeping them open and active. Neglect is one of the chief causes of constipation.

Without work it would be impossible for us to enjoy health, or even rest.

POULTICES

A poultice is in reality a prolonged fomentation. Its value is dependent more upon its degree of heat than upon the material used in making it.

If quick and powerful results are desired, as in the case of hastening suppuration, the poultice should be applied as hot as can be borne, and changed often enough to keep up the heat. If a soothing effect is desired, the poultice should be applied warm, and can be left on for a longer period without changing.

BREAD AND MILK POULTICE

After removing the crust from a piece of stale bread, crumb it into a basin and pour boiling milk over it, stirring until it is thick and smooth. Spread about half an inch thick on a piece of cloth, the size needed, and apply directly to the skin without any cloth between; or, if preferred, the mixture may be put into a thin muslin bag made for the purpose, and then applied.

LINSEED POULTICE

For a poultice of medium size, take two or three tablespoonfuls of linseed meal and pour boiling water over it, stirring constantly until it is smooth and of the proper consistency. It should not be made too thick or it will soon dry out and become useless. Spread it about a quarter of an inch thick on a piece of muslin, and oil it over the top with a little vaseline. Apply as warm as possible.

MUSTARD POULTICE

Take equal parts of flour and mustard, and with cold water make a thin paste. Spread on a piece of muslin, and if covered with another thin piece it can be retained in position for a longer time. Grease the spot to which

Remedies for disease should eliminate poisons instead of adding to them.

it is to be applied, and it will not be so likely to blister. Remove when the smarting is keenly felt.

A mustard plaster is less likely to blister if equal parts of flour and mustard are mixed with the white of an egg.

CHARCOAL POULTICE

Make a simple bread and milk, or bread and water, poultice, and sprinkle over it finely powdered charcoal. In the case of a venomous bite by a centipede, scorpion, or tarantula, or if a wound is poisoned by a rusty nail, this poultice is one of the best.

OTHER POULTICES

Good poultices may be made of ripe bananas, ripe figs, or freshly cooked ripe pumpkin.

Mash the bananas, spread them on a piece of cotton cloth, and apply. Ripe figs may simply be cut open and applied to the skin, being bound on to keep in place. In cases of inflammation, either bananas or figs are very cooling and agreeable to the patient. If changed frequently, the result will be better.

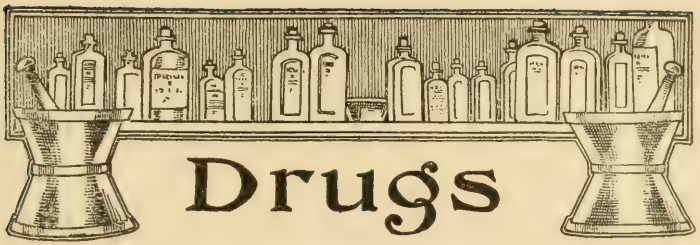
DRY HEAT

Materials

Rubber bags, bottles, or jugs filled with hot water; cloth bags filled with hot corn-meal, salt, sand, or ashes; or hot flat-irons, bricks, stones, or pieces of wood, wrapped in cloths.

Directions

Often when it is not convenient to apply moist heat or fomentations, dry heat may be serviceable. By the use of any of the materials named it may be applied to any part of the body. Rubber bags are best for this purpose if they can be obtained, as they are soft, and adjust themselves to any part of the body.



Drugs

A POISONED SYSTEM

Disease, in most cases, is the result of accumulated poisons in the system. A diseased condition may be compared to a ship with a heavy list to one side. How shall the ship be righted? There are two ways. A portion of the cargo may be removed from the heavily weighted side, or additional cargo may be put aboard to balance up the load. One method lightens the load, and the other increases it. By continuing to increase the cargo in this way whenever there is a list to one side, the ship is endangered, and may go to the bottom in the first great storm.



A Heavy Load



The Load Increased

LIGHTEN THE LOAD

When a man is sick, his body is generally loaded with poisons. In seeking relief he should first consider whether he will increase the load by taking poisonous drugs, or lighten the load by eliminating the poisons. If he takes additional poison into his system, he may find temporary relief, and continue to sail the sea of



The Load Removed

"The blessed, heaven-sent water, skilfully applied, would quench the hot fever, but it is set aside for poisonous drugs."

life as long as the weather is fair, but when the storm breaks upon him, the chances are that he will go down.

THE AMERICAN DRUG CURSE

"The disastrous and damning consequences of this curse to America," writes J. R. Stevenson, in *Physical Culture*, "are hardly known or appreciated by the public. The citizens of our country have been accustomed to seeing the ever-present saloon and drug-store till they look upon them almost as necessary parts of our civilization. They have had so many agents at work in their favor, and ignorance of the things that pertain to and promulgate physical health is so general and dense, that to the thinking man or woman it is little wonder that these dens are so numerous, or that their victims are such a multitude.

"The most noteworthy thing about America that impresses one who travels far over its fertile territory, is the enormous number of physical wrecks encountered—thin, emaciated, pale-faced men and women, who face you at every turn; who come into your offices, or sit beside you in the cars, and appear to be dragging out an aimless existence."

Mr. Stevenson states a truth too well known in America when he attributes a large share of this physical weakness to the effects of powerful drugs and patent medicines. America has become a fair field for the manufacture and sale of such powerful nostrums. As our population has rapidly increased, "drug venders and their victims have increased proportionately. The drug-store and the saloon keep close pace with the pioneers in the so-called march of progress."

"Science has endeavored to show that certain drugs are poisonous, that they produce evil effects upon organs and tissues when mixed with the elements of any living

"The usual custom of annihilating pain by some powerful drug is a most unnatural practice."

organism; yet, under one disguise or another, nearly all of these potent factors of physical degeneration are sold publicly and under the protection of our liberal government."

A HIGHROAD TO INTEMPERANCE

There is no surer pathway to intemperance than that which is entered through the gateway of patent medicines, and these gateways are kept open by the permission of our government, and its porters are licensed and protected by law. Patent medicines are dangerous chiefly because of the large per cent of alcohol and opium which they contain.

In an editorial in *American Medicine*, this question is asked, "Why do not the temperance people fight the patent-medicine enemy?" And again, "If it is admitted that the army canteen made drunkards, surely the patent-medicine syndicates make a thousand times as many. No one is ignorant of the fact that there are many million dollars' worth of these alcoholic nostrums sold each year, and that multitudes of people are thus secretly and ignorantly turned into drunkards. Doctor Bumgardner, in 'Transactions Colorado State Medical Society for 1902,' says that the following patent medicines contain the percentage given of alcohol:—

Green's Nervura	17.2
Hood's Sarsaparilla	18.8
Schenck's Seaweed Tonic	19.5
Brown's Iron Bitters	19.7
Kaufman's Sulphur Bitters	20.5
Paine's Celery Compound	21.0
Burdock's Blood Bitters	25.2
Ayers' Sarsaparilla	26.2
Warner's Safe Tonic Bitters	35.7
Parker's Tonic	41.6
Hostetter's Stomach Bitters	44.3

Drugs undoubtedly bring relief, but only by paralyzing the nerves.—A. B. Olson, M. D.

Dr. Ashbel P. Grinnell, of New York City, after making a statistical study of patent medicines, vouches for the truthfulness of the statement "that more alcohol is consumed in this country in patent medicines than is dispensed in a legal way by licensed liquor venders, barring the sales of ales and beer."

Statistics from the official reports of the Massachusetts State Board of Health, concerning such remedies as Hood's Sarsaparilla, Ayers' Sarsaparilla, Liebig Company's Cocoa-Beef Tonic, Parker's Beef Tonic, Boker's Stomach Bitters, and Warner's Safe Tonic Bitters, are as follows:—

"Ordinary whisky, as dispensed in saloons, is scarcely stronger in alcoholic content than are most of these so-called remedies, and especially some of them that are recommended for the treatment of inebriates and the alcoholic habit. . . . It is very probable that at the present moment the temperance societies of this country could do nothing better calculated to advance the cause of temperance than to undertake a vigorous crusade against the use of such remedies."

OPIUM AND COCAINE

Although it is well known that opium and cocaine are the most enslaving and body and soul destroying of all drugs, and although drugs are the most active agents for making slaves to these evils, yet "our drug makers and venders hold forth these poisons, to an ignorant and credulous populace, in many disguised forms, as a panacea for all ills. As patent soothing syrups, colic conquerors, and pain killers, it is retailed in small bottles to anxious mothers for doctoring their children. Even the family physician, when called in to prescribe for a tiny stomach that has been overloaded, writes hieroglyphics, which, when presented to the ubiquitous druggist, call for a preparation in

Drugs give relief only temporarily and the last state of the patient is often worse than the first.

which this damnable pain killer, nerve wrecker, tissue destroyer, is the prominent ingredient; and the little stomach takes in the poison, to deaden the nerves and disturb organic functions, and shock all the forces of life.

"All its ill effects no man can trace; how many infants are hidden away underground, year after year, the victims of their own loving mothers' misguided solicitude, and this deadly agent of the doctor and drug vender, no man can ever number."—*J. R. Stevenson*

PAREGORIC

"Doctors vary in their opinion," says Maud Banfield in an able article in the *Ladies' Home Journal;* "as to whether opium, alcohol, or cocaine is the most generally harmful constituent in the greater number of patent medicines and 'cures.' One reads of 'paregoric habits' which are 'cured' by a medicine bearing a fair-sounding name, which, upon analysis, is found to contain several times the quantity of opium existing in the paregoric mixture. A great many people seem to think that paregoric is a harmless, soothing mixture, good to give the baby when he cries, or just the thing for Johnie when he suffers the consequences of eating an unsuitable number of green apples. The Latin name for paregoric is *tinctura opii camphorata,* or camphorated tincture of opium. One ounce, or two tablespoonfuls, of the mixture contains two grains of opium. It is more constipating that the other preparations of opium, owing to the camphor.

"The stomach-ache from which Johnie suffers in consequence of too many green apples or too much pie, is nature's warning signal—it is a symptom, not a disease. If you saw a red light on a railway track warning another train that there was danger ahead, you would not think you removed the danger if you merely removed the red

Most patent medicines contain a large percentage of alcohol. Their effects are deceptive and they lead to intemperance.

light. The cause of this stomach-ache must be removed, and a dose of castor-oil or salts in proper quantities, which would help clear nature's track, is surely greater common sense than quieting the warning signal. Pain is always a symptom—never a disease.

"If the baby cries, and you are convinced that he cries because he suffers, you must try to arrive at and remove the cause—not give him a 'soothing syrup,' which may give both you and the baby a quiet half-hour at the cost of life itself."

DANGEROUS POWDERS

Under this head may be mentioned a large variety of powders and tablets recommended as a cure for headache, catarrh, depression, etc. In placing these goods upon the market, they are represented as containing a harmless combination of mild ingredients, whereas their supposed virtue lies chiefly in the presence, in dangerous quantities, of such powerful and demoralizing poisons as cocaine, opium, or acetanilide. These are the worst sort of patent medicines, the most deceptive in their character, and the most deadly in their effects.

BETTER REMEDIES

Drug medication is a curse. Within our reach are better remedies than these. "Nature will respond to God's remedies." Pure air, pure water, exercise, rest, and many other natural curative agencies are within our reach. We need only to become intelligent as to their proper use, and the harmful drugs may be set aside.



Care of the Sick

HOME TREATMENT

Many little ailments and minor diseases can be treated successfully in the home without the aid or advice of a trained nurse or physician. The extent of such home treatments and their success depend upon the knowledge the members of a family may possess of the use of rational remedies. It is well worth while to become intelligent in this home-nursing art, for it often saves the trouble and expense of calling a physician. Besides, if the illness is not serious, the patient may be quite as well off in the hands of a good home nurse as in the hands of a doctor.

WHEN TO CALL A DOCTOR

An ignorant or unscrupulous doctor should never be called. The services of the best physician procurable should be secured whenever symptoms of serious diseases appear which can not be treated intelligently without professional advice.

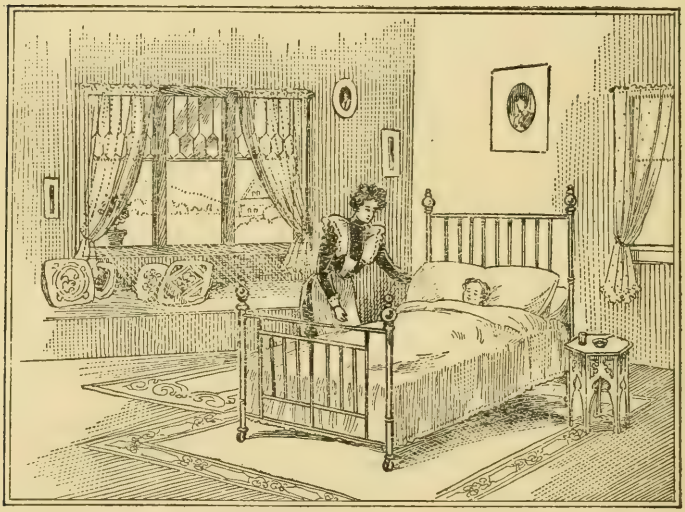
If some member of the family is skilled in giving treatments, most up-to-date physicians will cooperate with the family by prescribing simple, natural treatments, if they are desired, instead of drugs. Many physicians also have trained nurses who may be engaged to give such treatments.

A SUITABLE ROOM

The recovery of a patient depends very much upon his having a pleasant, sunny, well-ventilated room. If such rooms are needed when people are well, how much more so when vitality is low, and the body is weakened by disease. Yet it is not uncommon to find patients burning with

The care of the sick is one of the first items in "the program of Christianity."

fever in a small, close, and sunless room, or struggling with some other disease of both body and mind, shut up in a cheerless place, while pleasant rooms are kept for the reception of guests. How short-sighted this is! If there is a sunny, airy bedroom in the house, the sick one should



A Pleasant Room for the Sick

have it; and if not, it is better to place the patient's bed in the dining-room or living-room, than for the sufferer to pine away, day after day, in a room that is small and cheerless. The warm, genial, powerful rays of the sun, and the fresh, pure air, are agencies of primary importance in combating disease.

QUIET

Keep the patient quiet and free from excitement. Few visitors should be admitted to the sick-room. Even though they may be dear friends, there is more or less excitement

Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me.—Jesus

caused by every visitor. Conversation should be in an audible voice. Whispering is always irritating to the nerves, and irritating to the patient's mind. Any conversation that the patient should not hear should be carried on outside the room, and without his knowledge.

SIMPLE FOOD

"What should we do if some one was taken sick in the night?" questioned a lady who made the startling discovery that there was "not a pie or a cake in the house." Some people have the erroneous idea that "something to tempt the appetite" is the first remedy for all diseases. On the contrary, however, it is usually the case that the appetite has "been tempted" too much. Instead of fixing up rich, indigestible dishes for the sick, better allow them to fast for a day or two, until nature has had time to rid itself of the accumulated poisons which have caused the trouble. Food should not be urged upon the sick. Nature will usually demand it as soon as it is needed; and when food is given, it should be simple and plain. Patients recovering satisfactorily from a long illness have often been killed in a few hours by being permitted to eat heartily of solid food.

CARE OF THE BED

A clean, comfortable bed goes a long way toward soothing and quieting the sick, overwrought nerves. The ability to make a bed is not the least among the accomplishments of a nurse.

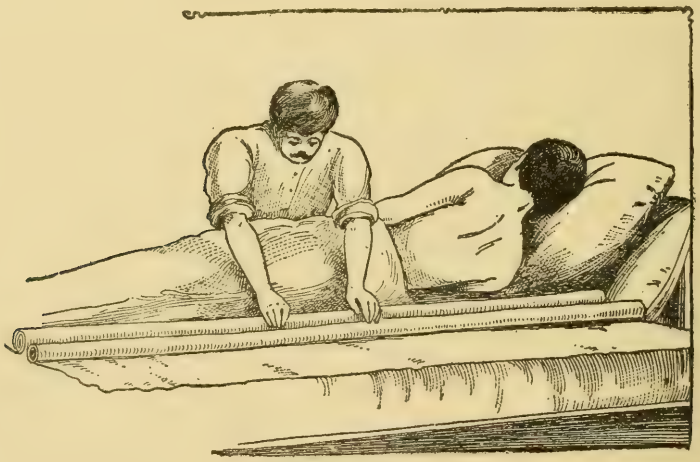
A good, flat mattress, made of cotton or hair, is the best for a sick-bed. Feather-beds or stuffed ticks are neither comfortable nor practical. Blankets, as they can be aired and washed easily, are better for coverings than comfortables.

The sheets and blankets should be changed often, and

Ability to minister to the sick, tenderly and intelligently, is one of the most beautiful accomplishments of women.

exposed for a half-day at a time, at least, to the sun and air, and washed as often as necessary to keep them clean.

To make the bed, when the patient is not able to sit up, requires a little tact, but can be easily accomplished. Loosen the under sheet and roll it up lengthwise from the side of the bed to where the patient lies. Roll the clean sheet lengthwise, tuck the edge of it under the mattress, and unroll it until it is beside the other roll. Turn the



Changing the Sheets

patient over the rolls, or lift him over if necessary, remove the soiled sheet, and unroll the clean one. Draw it tightly, and tuck it under the mattress, so there will be no wrinkles. To change the top sheet without exposing the patient, loosen the clothes at the foot, spread the clean sheet over the top of the bedding, cover it with a blanket, and tuck it at the foot of the bed. Then remove the soiled clothes from underneath.

"It is misdirected kindness, a false idea of courtesy, that leads to much aimless visiting of the sick."

CLEANLINESS

Keep the room clean. Avoid stirring up dust. Use proper disinfectants in cleansing the vessels so as to keep them clean and odorless. Even the appearance of a clean, orderly room is restful and cheering to the patient.

"As to the furnishing of the sick-room," writes Maud Banfield, a trained nurse, in the *Ladies' Home Journal*, "it should be remembered that the less furniture and nicknacks you have in the room, the fewer you have to keep clean, and a sick-room must, of course, always be kept immaculately fresh and dusted. But it is not restful to your patient to have you spend half the day dusting and cleaning all around her even if you are willing to do it.

"In rooms which are prepared for serious surgical operations, and in rooms in which any contagious diseases are to be nursed, it is necessary to remove carpets as well as everything else in the way of furniture not actually needed; and in the case of a minor operation, to cover at least the carpets with clean sheets, securely fastened to the floor. But in other cases of illness you wish the room to look attractive. Rugs which can be removed and shaken outside the house are the best.

"The floor should not be swept, but wiped up with a large floor duster, slightly dampened. If, however, you do use a broom or a carpet-sweeper, be sure you do not knock these against the legs of your patient's bedstead. The patient alone can tell you how unpleasant this is; and I am sure he or she would tell you that it is only a little less unpleasant when you strike other pieces of furniture. People who have no nerves when they are well often seem to have an extra number when they are ill, and little annoyances are by no means little to them."

Hope, cheerfulness, and faith in God are powerful weapons with which to combat disease.

EVEN TEMPERATURE

A good thermometer should be provided for the sick-room, and the temperature should be regulated intelligently. Often the room is kept too close and hot. Extreme changes often imperil the life of the patient. The judgment or comfort of the nurse is not a good substitute for a thermometer.

FLOWERS IN THE SICK-ROOM

Make the sick-room pleasant and attractive by such simple means as will not be injurious to the patient.

Cut flowers and plants make a room look fresh and pretty. Choose those that do not have a strong perfume, as these are often disagreeable and even oppressive to the patient. The water in the vases should be changed daily, and the flowers removed before they become withered and stale.

INTELLIGENT ACTION AND CARE

Sickness is the result of wrong habits of living. The following rhyme falls short of suggesting a true remedy:—

"Think health, and health will find you
As certain as the day.
Disease will lag behind you,
And lose you on the way."

If thinking health would only make us well, we need never be sick. But we must do something besides think health; we must live health. This kind of mind-cure is quite as sensible as that suggested by a magazine parody on the foregoing verses:—

"Think bread when you are hungry,
And shortly you'll be fed.
Think rest when you are weary,
And you'll find yourself in bed."

Disinfectants

KNOWLEDGE REQUIRED

Housekeepers should have a sufficient knowledge of disinfectants to enable them to keep the plumbing of the house in a sanitary condition, to cleanse and deodorize household utensils, and to keep the surroundings of the house clean and wholesome. They should also understand the proper use of disinfectants in the care of wounds, the treatment of any infectious disease, and the disinfecting of a sick-room in order to prevent the spreading of disease.

CAUTION

Nearly all disinfectants are powerful poisons, and should be handled with the greatest care. People who are ignorant of their proper use should leave the more poisonous ones alone, or secure expert advice from a physician or chemist. Solutions which are kept on hand ready for use should be preserved in glass cans or bottles, or in earthen jars or jugs, distinctly labeled, and marked, "Poison." Care should also be taken to place them beyond the reach of children. A simple coloring may be put into colorless liquids to prevent their being used by mistake, as something harmless. These cautions are important, and can not be too strongly emphasized.



Plainly Labeled

To disinfect thoroughly, some agent must be employed to destroy the germs of disease. The following are some of the disinfectants most commonly used:—

A disinfectant is a substance used to destroy the dangerous properties of decomposing matter and germs of disease.

SUNSHINE

Nature's greatest agent for disinfecting and deodorizing is the bright sunshine. It is free to all, and needs no bottles or jugs to preserve it, nor "poison" labels to warn against carelessness in using it.

HEAT

Heat is one of the best means of disinfection. Either dry or moist heat may be employed according to the nature of the article to be treated. Many articles which would be ruined by chemicals or moisture may be safely disinfected by baking in an oven. Steaming and boiling are also effective methods of destroying germs if the process is continued from thirty minutes to an hour.

DRY EARTH

This is one of the best absorbents and deodorants if finely powdered and very dry. It should be gathered up from dusty roads, or dried in an oven, and preserved in boxes or barrels for use in wet weather or in the winter. Use freely; it is of great service.

SAL SODA

This is good for cleansing the water fixtures. A solution should be made from one pint of sal soda to three gallons of water, and applied boiling hot.

CHARCOAL

Powdered charcoal, mixed with clear water, is also a good disinfectant and deodorant.

ASHES

Ashes may be used the same as dry earth, and with equally good results.

Fresh air and pure water stand foremost among the substances regarded as protective disinfectants.—M. Benjamin

COPPERAS

Dissolve one pound of copperas by boiling in one gallon of water, and keep on hand in a glass jar or stone jug ready for use in cleaning sinks, slop-jars, etc.

LIME

Old air-slacked lime or plaster, which is practically worthless for any other purpose, is good if strewn in large quantities about hen-coops, roosts, etc., or in damp places under houses. It is a great insect destroyer. Fresh lime is still better.

Dissolve one pound of fresh lime in one gallon of water, allow it to settle, then pour off the clear liquid and preserve in a glass or stone jar. One quart of this solution to a pailful of water is good for cleansing in case of infectious diseases.

SULPHUR

Sulphur is the "old reliable" for disinfecting rooms or clothing. There are other agents more powerful; but as sulphur is not expensive, and as it is quite safe to handle and to have about the house, it is commonly used where it will not do injury by bleaching.

CARBOLIC ACID

One part of carbolic acid to nineteen parts of water makes a solution capable of destroying all germ life. This solution, however, is stronger than should be used under ordinary circumstances.

FORMALDEHYDE

This is one of the most powerful and efficient of agents for the disinfection of rooms, beds, and clothing which have been used in connection with contagious diseases. It should be used under the directions of a physician, nurse, or chemist, or some other person who understands the work.

"The sun is the life-preserver, the health-promoter of this earth." Sunshine is nature's germicide.

BICHLORIDE OF MERCURY (CORROSIVE SUBLIMATE)

A solution of bichloride of mercury and water is one of the best germicides for use in the sick-room.

Two drams of bichloride to one gallon of water makes a 1-500 solution. This will kill any known germ, but is too powerful for common use.

One dram of bichloride to one gallon of water, or fifteen grains to one quart of water, makes a 1-1000 solution, suitable for disinfecting the floors, walls, or furniture of a sick-room.

PERMANGANATE OF POTASH

Eight grains of permanganate of potash to one quart of water makes a valuable disinfectant to use on the body of a patient. It is safer to handle than some of the disinfectants, as it is not very poisonous.

A one-pound can of common potash (concentrated lye) dissolved in two quarts of boiling water is the proper strength for cleansing water fixtures and drain pipes.

BORIC ACID

This is a mild disinfectant, but is valuable, as it can be used on the body where many more powerful agents would do injury. It is more valuable in preventing the development of germs than in destroying them.

PEROXIDE OF HYDROGEN

For frequent and common use in the home, peroxide is one of the best disinfectants for use in dressing wounds and sores of all kinds. It is not poisonous, and is pleasant to use. It is carried by all druggists.

One of the strong advantages of peroxide of hydrogen is that it does not act in the least upon the living tissue, except when used in a very concentrated form, but quickly

"If proper precaution is observed, non-contagious diseases need not be taken by others."

destroys all germs. When applied to a wound, it froths actively if there are germs present, thus indicating that it is doing its work.

TO DISINFECT THE PLUMBING

1. Once a month, or oftener if necessary, all the waste pipes leading from the toilet, bath-tub, wash-bowl, sink, etc., should be flushed with a solution of sal soda, boiling hot. From two quarts to a gallon should be used for each fixture. The liquid should be poured rapidly so as to fill the pipes, and cleanse all the inner surfaces.

2. A solution made from common potash (concentrated lye) is better than sal soda for use in sinks or hoppers where grease may have accumulated in the pipes. It should be applied boiling hot. Thirty minutes after, the pipes should be flushed with hot water.

3. In the absence of both sal soda and potash, a hot, strong solution of carbolic acid or bichloride may be substituted.

4. Clean the sink occasionally with a solution of copperas to remove unpleasant odors.

When there is sickness in the house, the plumbing should be disinfected oftener, and if the disease is contagious, it ought to be done every day.

SICK-ROOM UTENSILS

1. All the dishes used around the sick-room should be washed with a five per cent carbolic acid solution, or the 1-1000 bichloride solution.

2. Dishes may also be cleansed by boiling from thirty minutes to an hour. To insure perfect disinfection, put a little sal soda, or some other good germicide, in the water.

3. Leave a little of the disinfecting solution standing constantly in the slop-jar or spittoon.

Sunshine, ventilation, cleanliness, and a wise use of disinfectants will usually prevent the spreading of disease.

SICK-ROOMS

A sick-room can not be thoroughly disinfected while the patient is in it. If the sickness be of long duration, the patient should be moved to another room, if possible, while his room is being cleaned. However, much can be done to keep the room sanitary by ventilation, sunshine, cleanliness, and the free use of disinfectants in cleaning the room and the utensils, and in washing the patient's clothing and bedding.

As most of the germs are to be found on the floor, walls, and ceiling of a room, they can mostly be removed by washing with a bichloride solution, provided there is no carpet on the floor, and if the walls and ceiling are well painted instead of being papered or tinted.

After any person suffering from an infectious disease has vacated a room, it should be thoroughly disinfected before it is used again. Modern facilities have very much simplified this process. It is not necessary to remove the furniture or bedding from the room. In fact, it is better to disinfect them all together.

Hang the bedding singly upon chairs. Open the dresser drawers. Make the room close by closing windows and doors, and calking the larger cracks. Disinfect by burning one or two formaldehyde candles, according to the size of the room. The room should be kept closed for twenty-four hours. Then air thoroughly.

DISINFECTING THE HANDS

After handling a patient suffering from an infectious disease, the nurse should disinfect her hands by washing them in soap and water, and immersing them in a 1-1000 solution of bichloride of mercury. A one per cent solution of carbolic acid may also be used for the same purpose.

"Give the air, full of life and sunshine, a chance to flood your home, and drive out dirt, darkness, and disease."

SOLUTION BATH

A 1-4000 solution of bichloride may be used for bathing the body of the patient. A frequent bath of this kind is often very necessary to prevent the patient from infecting himself. The nurse should exercise great care when ministering to a patient suffering from an infectious disease. Plenty of fresh air, solution baths, and keeping her hands disinfected, are her best precautions.

CLOTHING AND BEDDING

Put to soak for two hours in a solution of chloride of lime, and then boil. Or in place of the lime-water, a solution of bichloride of mercury 1-2000 may be used.

WOUNDS AND ERUPTIONS

In dressing slight wounds and skin eruptions, peroxide of hydrogen should be freely used. For severe wounds, a physician or skilled nurse should direct in the use of the proper disinfectants.

THE PREMISES

1. Lime should be scattered freely under the house, in cellars, and in the wood-shed, outside toilet, chicken coops, and in all such places where germs and insects may multiply. Lime is a great destroyer of insects, and should be scattered frequently about their natural haunts.

2. Dry earth should also be freely used in such places, particularly in the outside toilet, where it is valuable as an absorbent and deodorant. Ashes may be used for the same purpose.

3. Damp, filthy places should be spaded up, and exposed to the sunshine; low places about the dwelling, that hold water, should be filled; and dirty places should be cleaned up, disinfected, and kept clean.

The battle with germs is best fought in the environment of a home before they find an entrance.

TO DISINFECT BOOKS

"Among the contents of the sick-room which must be destroyed after a case of contagious disease, perhaps none are surrendered with more regret than the books; consequently those most highly valued are usually excluded from the sick-room, and the restless sufferer debarred from the comfort of his favorite authors during the weary time of waiting for health to return.

"Now, however, it is announced that a perfectly efficient disinfectant for books has been discovered by the director of the New York Library. The substance used is formalin, a saucerful of the solution being placed in an air-tight box with the book to be treated. In an hour's time, it is claimed, the vapor will have saturated every leaf, and destroyed every germ in the book."

KNOWLEDGE AND IGNORANCE

Knowledge holdeth by the hilt, and heweth
out a road to conquest;
Ignorance graspeth the blade, and is
wounded by its own good sword;
Knowledge distilleth health from the
virulence of opposite poisons;
Ignorance mixeth wholesomes unto the
breeding of disease;
Knowledge is leaguered with the universe,
and findeth a friend in all things;
But ignorance is everywhere a stranger,
unwelcome, ill at ease and out of place.

—*Tupper*



QUICK, INTELLIGENT ACTION

Presence of mind, and quick, intelligent action are of greatest consequence in case of accident, particularly if it be of a serious nature.

Newspapers frequently record such insane acts as that of a mother who ran wildly for half a mile to call her husband to the rescue when her baby fell into the rain-water barrel.

A reporter in describing a serious accident which might have been prevented by prompt action, said that "all the people ran wildly from the spot except one poor woman who had the presence of mind to scream and faint away."

In emergencies some one who is competent to do so should immediately assume command and prevent crowding and screaming, as far as possible. If the accident is serious, some one should be despatched at once for a physician, and others be drafted into whatever service can be rendered until the doctor comes.

Life can often be saved by doing the right thing quickly and intelligently.

AN EMERGENCY CUPBOARD

In every home there should be an emergency box or cupboard, containing simple remedies and supplies ready for immediate use in case of accident. Often life is dependent upon little things, as in the proverbial story of "The Want of a Horseshoe Nail."

The following are some of the necessities to be kept constantly on hand in the cupboard:—

A few bandages of different sizes, and an old sheet or

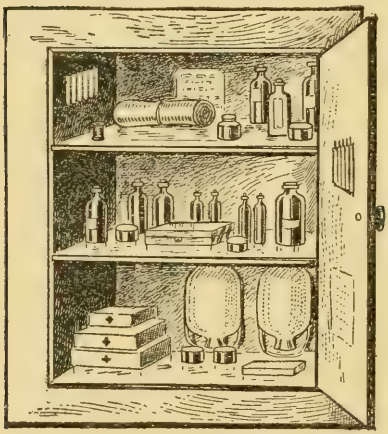
The emergency cupboard should contain only the simple remedies that can be used without injury.

other clean, cotton cloth from which more can be made.

Absorbent cotton.

Pieces of soft, old linen. Worn handkerchiefs are good.

Pieces of flannel which can be used for fomentations.



Ready for Emergencies

Flaxseed and hop leaves for making poultices.

Hot-water bags, spine bags, and ice bags.

Full set of syringe appliances.

Fever thermometer.

Common needle and thread.

Needle and thread for sewing wounds.

Plenty of string, one or two very strong ones.

Vaseline, witch-hazel, a jar of cold-cream, package of bicarbonate of soda (for burns), bottle of olive-oil, spirits of camphor, oil of cloves, court-plaster, ammonia water, turpentine, carbolic acid, bichloride of mercury tablets, collodion, mustard, alcohol, peroxide of hydrogen, listerine, and iodine.

All medicines should be tightly corked, and plainly labeled. The children should be instructed that these things are for special use, and should not be interfered with.

BURNS

The thing of first importance in treating a burn is to exclude the air. For slight burns there are many simple remedies, among which the following are most effective:—

1. For a slight burn, make a paste of common baking

Presence of mind, and intelligent, prompt action, are most necessary in case of accident.

soda and olive-oil, and apply as much to the burn as will adhere.

2. An application of collodion is one of the best remedies for slight burns. It forms a coating over the burn, keeps out the air, and thus stops the smarting.

3. Several thin coats of mucilage may be applied, enough to form a coating that will keep out the air.

4. Molasses, honey, linseed oil, soap, or varnish, applied to the burn will serve the same purpose. Of all these remedies nothing is better than thick molasses, and this is usually kept on hand.

5. A poultice made of tea leaves will give instant relief and will often prevent a blister or a scar.

6. Bathe the burn with kerosene, and rub on as much flour as will adhere, and continue the process once in twenty or thirty minutes until the smarting is relieved.

7. Equal parts of the white of an egg and olive-oil will prevent blisters if applied at once.

8. Mix sweet oil and lime water (equal parts) and keep the burn well covered with it. Scraped potatoes have been long used as a soothing application for burns.

9. Butter is excellent for a burn; if the spot is covered instantly with butter the skin will not blister.

10. A bad scald should be bathed gently in cool water. Dress with soft cotton or linen cloth saturated in sweet oil containing five per cent of carbolic acid. This preparation is made by adding one drop of carbolic acid to nineteen drops of oil.

SERIOUS BURNS

Severe burns are often more dangerous than is supposed, and should be dressed by a physician. Before the doctor arrives, any of the excellent remedies suggested for slight burns may be applied.

One thought immediately executed may be worth more in an emergency than a hundred brilliant ideas advanced too late.

ACID BURNS

Burns caused by any acid, such as carbolic acid, should be covered with common baking soda, ashes, or earth. The alkali will neutralize the acid. Or an application of alcohol will neutralize carbolic acid and prevent its burning.

A still better remedy is the tincture of iodine. Paint, quickly, the surface which has been touched by the acid. If applied immediately to the burn, it will prevent a blister.

OINTMENTS FOR BURNS

1. An excellent ointment for burns may be made from camphor-gum and lard. Take one ounce of pulverized camphor-gum, and mix it thoroughly with two tablespoonfuls of fresh lard until it forms a salve. This should be kept in a glass or porcelain ointment jar, tightly covered. If applied at once to a burn, it will probably prevent a scar. It should be applied freely to the wound and the surrounding surface, then covered closely with absorbent cotton. A light bandage may be put over this to keep it in place.

2. Lanolin, eight ounces; white wax, four ounces; balsam of fir, one ounce; carbolic acid, three-fourths ounce. Heat the lanolin and wax just enough to melt them, then add the fir and carbolic acid and keep stirring constantly until it thickens so the acid will not settle. Preserve in small jars or tin boxes that can be closely covered.

3. "Olive-oil, one and one-fourth pounds; bees-wax and unsalted butter, each two ounces; white pine pitch, four ounces; red lead, one-half pound; honey, six ounces; powdered camphor gum, four ounces. Directions.—Put the olive-oil into a suitable kettle, place on a stove, and bring it to a boiling heat; then, the lead being in fine powder, stir it in as you would make 'mush,' and continue the

It is characteristic of some people that their forethought always comes afterward.

heat and stirring until it becomes a shiny black or deep brown. Remove from the fire, the bees-wax being shaved



Presence of Mind

finely, stir it in; then the other ingredients, the powdered camphor last. Spread on a cloth and apply."—*Chase*

CLOTHES ON FIRE

If your clothes take fire, do not run. The current of air created by the movement will fan the flame. Lie down and roll over or smother the flames with your own clothing. If the fire is beyond your control, call for some one to bring a blanket or rug and wrap it closely around you. If no help is near, seize the first garment, blanket, or rug available, and smother the flames yourself.

People who, figuratively speaking, lose their heads, often lose their heads actually as the result.

FAINTING

Fainting may often be prevented by lying down quickly. It is caused by a failure of the heart to pump sufficient blood to the brain, and a reclining position lightens the work of the heart.

A fainting fit is more alarming than serious. Lay the patient flat on the bed, or upon the floor, having the head, if possible, a trifle lower than the body. This can be managed, even when the patient has fallen upon the floor, by slipping under the body a pillow, blanket, or rug. See that there is plenty of fresh air, bathe the face with cold water, hold ammonia under the nostrils, and, when the patient is conscious, give him cold water to drink. Do not make the patient swallow just as he is recovering consciousness; there is great danger of choking him. After consciousness is restored, the patient should rest.

SMOKE OR GAS POISONING

Unconsciousness is sometimes caused by inhaling smoke or poisonous gases. This frequently occurs in burning buildings. Give the patient fresh air at once. Loosen the clothing; bare the chest; and stimulate breathing by bathing the chest alternately with hot and cold water. Rub the limbs and body briskly. Call a physician if consciousness is not quickly restored.

ACCIDENTAL POISONING

If a person takes poison either accidentally or intentionally, the opportune moments when relief might be given are often wasted in foolish confusion and excitement. Send immediately for a physician. Prepare quickly half a glassful of water containing a teaspoonful of salt and an equal amount of ground mustard. Make the patient swallow it. This will produce vomiting almost immediately, and a

We should discipline ourselves to act instead of to scream when confronted by emergencies.

larger part of the poison will be gotten rid of in this way. If the doctor is long in coming, give the patient the white of an egg, as that is a good antidote for most poisons.

HEMORRHAGES

If the hemorrhage is severe and can not be easily controlled, a physician should be called. In case of a cut or wound, where an artery is severed, as will be indicated by spurts or jets of bright red blood, it is often necessary that the bleeding should be stopped immediately, or life might be extinct in a few minutes. Take a strong cord, a handkerchief, or a strip of cloth torn from the clothing, if necessary. Put this cord or ligature around the limb near the cut. If an artery has been severed, the ligature should be placed above the wound toward the heart. If a vein has been severed, as will be indicated by an even flow of dark blood, the ligature should be on the other side of the wound. Tie the ligature loosely, insert a stick and twist it until the blood has practically ceased to flow. The stricture will be aided by inserting some solid substance under the string above the artery.

The flow of blood may also be lessened by the use of ice or cold water, or by elevating the wound above the rest of the body. If the wound is where a ligature can not be applied, the hemorrhage may be checked by applying pressure above the vein or artery.

NOSEBLEED

The common practice of leaning forward over a washbowl and bathing the face with water frequently increases the bleeding instead of checking it. Hold the head erect; twist the corner of a pocket handkerchief and press it into the nostril, closing it tightly, so as to stop the blood

One practical suggestion when life is at stake will often prevent fatality.

and enable it to form a clot. Care should be taken not to blow the nose for some time afterward, as it is likely to start the bleeding afresh. If the bleeding is not easily stopped in this way, hold the hands high above the head. Cold water or ice applied to the back of the neck will often prove effective. Sometimes a solution of alum water thrown into the nose with a syringe will check the hemorrhage.

CUTS

If the cut is small, wash with clean water and carefully remove any blood clot or foreign matter that may appear in the wound. Press the edges nicely and firmly together, and do up in a strip of clean cotton cloth. Saturate the cloth with a solution of boric acid.

If the cut is severe, so as to require stitches and dressing by a physician, this same treatment may be applied until the doctor comes.

WOUNDS FROM RUSTY NAILS

From the first, such "punctured wounds" should be taken seriously, for they frequently cause much trouble. The chief trouble arising from the puncture of a rusty nail is frequently caused by the fact that the nail is not clean. Nails in old pieces of boards about the barns and yards are frequently covered with germs that cause lockjaw. If the wound is deep, it may be best to call a physician immediately, and he may open up the wound so as to clean and disinfect it thoroughly. If the puncture is not deep, it will simply need careful dressing. Soak the wound in hot water containing a few drops of carbolic acid. It is well also to syringe out the wound with a five per cent solution of carbolic acid.

Dress the wound with a flaxseed or charcoal poultice. The wound should be kept open until it has thoroughly

Become intelligent in emergency treatments. We can not always consult books in a crisis.

healed inside. If any complication arises, a doctor should be called immediately.

SPRAINS

Sprains most frequently occur in the ankle joint. Only a slight accident of this kind sometimes results in the loss of the limb. The best treatment for a sprain is fomentations, light massage, pouring with hot and cold water from a height of three or four feet, and complete rest.

The chief trouble usually arises from failure to keep quiet. Urgent business and the apparently trivial nature of the sprain lead the patient to resume his work too soon, and the trouble is aggravated.

CHOKING

If a child chokes, hold his head down and slap his back vigorously. Or, lift first one arm and then the other straight up by the side of the head. This will induce deep breathing and stop the choking.

If a small fish bone or bristle from a tooth-brush lodges in the throat, swallow some coarse pieces of hard bread or crackers. This will usually dislodge it.

If something has lodged in the throat and does not yield to simple remedies, it is sometimes necessary to have it removed by a physician.

BRUISES

1. One of the best remedies for a bruise is to apply fomentations immediately as hot as can be borne. Or, apply hot and cold alternately. This treatment relieves the pain and soreness, and diminishes the discoloration.

2. To prevent discoloration, rub the bruised spot at once with butter.

3. Bathe freely with a solution of salt and vinegar.

4. Apply a plaster made of brown sugar and camphor.

Ignorance is the mother of confusion.

5. Soak a piece of common brown paper in vinegar and place it over the bruise.

BITES OF ANIMALS

Very little treatment is necessary unless the flesh is badly lacerated. Cleanse the wound, remove any foreign matter that may be in it, and bind it up the same as a cut.

If the animal is enraged at the time, the wound may be poisoned, and should be treated as a poisoned wound.

FOREIGN BODIES IN THE EAR

If an insect crawls into the ear, drop into the ear a little warm water or warm sweet-oil. Peas, beans, corn, or any solid substance may usually be removed by syringing the ear gently with warm water. Incline the head to one side during this treatment. Never use any sharp instrument in the ear. If the object is not removed by this simple means, use a pair of small forceps or a loop of fine wire.

FOREIGN BODIES IN THE NOSE

If any foreign body like a bean, pea, or kernel of corn becomes lodged in the nose, close the mouth and the unobstructed nostril and blow the nose with as much force as possible.

It may be removed by syringing out the nose. Force the water up through the open nostril.

Sometimes the object can be removed with a loop of wire or a pair of small tweezers. Be careful not to push it farther into the nostril.

If none of these means prove successful, consult a physician.

DIRT IN THE EYE

If the particle of dirt can be seen upon the eyeball, it may be wiped out with the corner of the handkerchief or

Children should be carefully taught how to avoid accidents, and what to do in emergencies.

a piece of soft linen. Sometimes it is necessary to turn the lid back over a lead pencil or other small instrument before the dirt can be seen; then it can be wiped out.

There is no virtue in placing flaxseed or eyestones on the eyeball except to produce an extra flow of tears that may wash away the intruder.

Sometimes a particle of metal becomes imbedded in the eye; it will need the attention of some one of experience to remove it, and a surgeon should be consulted immediately.

SNAKE BITES

"I am often asked what I would do if bitten by a rattlesnake while away from help. If the wound be at the tip of the finger, I should like to get rid of the part by some auto-surgical means, as a knife or a possible hot iron affords. Failing these, or while seeking help, it is wise to quarantine the poison by two ligatures drawn tight enough to stop all circulation. The heart weakness is made worse by emotion, and by this time a man may need stimulus to enable him to walk home.

"As soon as possible some one should thoroughly infiltrate the seat of the bite with permanganate of soda or potash, or some other like agent. By working and kneading the tissues, the venom and the antidote may be made to come into contact, and the former may be so far destroyed. At this time it becomes needful to relax the ligatures to escape gangrene. The relaxation, of course, lets some venom into the blood around, but in a few moments it is possible again to tighten the ligatures, and again to inject the local antidote. If the dose of venom be large, and the distance from help great, except the knife or cautery, little is to be done that is of value. But it is well to bear in mind that in this country a bite in the extremities rarely causes death. I have known of nine dogs having been bitten by as many

Next to absence of body, presence of mind is the one thing to be desired when overtaken by sudden danger.

snakes, and of these dogs but two died. In India there would have been probably nine dead dogs."—*Dr. S. Weir Mitchell*

NAUSEA AND VOMITING

If nausea is caused by the introduction of something into the stomach that should not be there, it is best to give an emetic of some kind that will induce vomiting. The sooner the stomach can be relieved in this way the better.

If it is desirous to avoid or check vomiting, several simple remedies may be employed. Drinking hot salt water will often give relief. Apply heat and cold to the stomach or to the spine. Put ice in an ice-bag, or wrap small pieces in a cloth and apply to the throat and back of the neck. Permit the patient to swallow bits of ice.

HICCOUGHS

A few swallows of cold water, taken while holding the breath, is generally effective. Sugar mixed with vinegar or water and taken in small quantities is a good remedy.

CONVULSIONS

If there is plenty of hot water, place the patient at once in a hot full bath, with cold applied to the head. Use ice if it can be obtained. When there is not hot water enough at hand for this treatment, give a hot foot-bath, always keeping the head cool.

Discover the cause of the convulsions if possible. If it is a result of constipation, give a copious enema of warm soap-suds to relieve the bowels. If the trouble is in the stomach, give an emetic. A part of a cup of salt and water may be given as soon as the patient can swallow.



Treatment of Minor Diseases

A GOLDEN TREASURE

Good health! What a rare golden treasure!
We mourn it the moment it's gone;
We compass the world to reclaim it,
And, failing, are wretched, undone.

When with us, we value it lightly,
We treat it as though it were clay;
Too often, a slave to our pleasure,
We bind it and fling it away.

A servant most faithful we find it;
Its laws are a boon in disguise;
But dear is the price we are paying
When its precepts we deign to despise.

Yet always 'twould give us good service
If its laws we would only obey;
But by constantly breaking its precepts,
We wilfully drive it away.

—*Health*

CAUTION

The suggestions given and simple treatments recommended in this chapter are not designed as a substitute for skilful medical advice and care. Many diseases make their first appearance in some light, incipient form, and can be entirely averted by prompt, simple treatment at home, without the necessity of calling a physician. Sometimes life is sacrificed by delay in calling medical aid; while, on the other hand, many people form the foolish habit of calling a physician for every little ailment which may easily be remedied by a happy combination of good sense, thorough reform, and home treatment.

"Laugh and grow fat is an old adage. Laugh and get well would be just as true."

COLDS

Colds should be treated as a serious disease. Because they are so common, and because, in many cases, no serious results appear immediately, they are often regarded lightly, and left to run their course. When neglected, every cold prepares the way for another more serious attack, as it leaves the tender membranes of the nose, throat, and lungs impaired, and paves the way for chronic catarrh, influenza, and consumption. If the serious results which frequently follow neglected colds were fully realized, more faithful attention would doubtless be given to this most common of all diseases.

PREDISPOSING AND DIRECT CAUSES OF COLDS

Among the many causes of colds, the following may be mentioned as some of the most common:—

Overeating, particularly of large quantities of animal food, indigestion, constipation, neglect of bathing, sedentary habits, intemperance, too much clothing, particularly heavy, unnecessary wraps, overheated and unventilated rooms, working or sleeping in impure air, breathing dust in filthy places, exposure to damp, chilly air, exposure to draughts, particularly when perspiring, damp clothing, and cold, wet feet.

PREVENTION

The means by which colds may be prevented are, naturally, the opposite of the causes:—

1. Temperance in eating and drinking is the most important of all the means for preventing colds, and the same might be said of many other diseases. Temperance is the total discarding of that which is bad, and the moderate use of that which is good. People who are susceptible to colds have additional reason for temperance in all things.

A merry heart doeth good like a medicine.
—Bible

2. Take a vigorous hand bath every morning, and a warm bath for cleanliness at least twice a week, so as to keep the skin in a healthy, vigorous condition.

3. Take active, daily exercise, such as walking, deep breathing, calisthenics, and best of all, regular work in the garden or wood-yard.

4. Avoid unnecessarily heavy clothing on the body, but keep the extremities well protected. Avoid unnecessary wraps, especially when walking. Keep the feet warm and dry. Much harm is done to the health by sitting all day, in an office, perhaps, with wet, cold feet. Thick soles, rubbers, and overshoes are good protectors against colds.

5. Avoid overheating the living-rooms. Keep them at a temperature of from sixty-five to seventy-two degrees when the weather is colder than that outside, and when the weather is warmer, keep the rooms as airy and cool as possible.

6. Avoid sleeping in close rooms.

7. Beware of dust, particularly in filthy places.

8. Avoid draughts and exposures, especially when overheated or exhausted.

9. Remember that vigorous activity of all the organs of the body is the most reliable barrier to disease.

TREATMENT

As soon as the first symptoms of a cold appear, vigorous treatment should be given. The principle underlying all treatments of colds should be the elimination of poisons from the system, increased circulation at the surface and extremities of the body, and a relief of congested and irritated organs by local treatment. These results may best be accomplished by dieting, exercise, hot baths, sitz baths, foot and leg baths, fomentations, compresses, and rest.

If a cold makes its first appearance in the morning,

We can ill afford to dwarf or cripple a single function of mind or body by overwork, neglect, or abuse.

take as vigorous exercise as the strength will permit, preferably out-of-door exercise in the sunshine. If otherwise well and strong, eat nothing during the day, or, at most, only a little fruit. Drink freely either cold or hot water, or lemonade. Early in the evening take a hot foot-bath, and drink freely, to induce perspiration. Do not take an exhaustive sweat. When the perspiration starts freely, cool the water, then dry the feet with a coarse towel, rubbing briskly with the towel and hands until the feet are thoroughly dried. Put on a warm nightdress or wrap in a woolen blanket, and go to bed. If breathing through the nostrils is difficult, a cold compress bound around the forehead will give relief. In the morning take a hand bath with cool water if strong enough to react vigorously.

If the attack first appears in the evening, take a brief, active exercise in some way which will start perspiration, and then proceed with the treatment as directed above. A hot full bath, hot sitz bath, fomentations to the chest or spine, or any other similar hot treatment may be taken instead of the foot-bath, and may be better in some cases.

One treatment of this kind will, in most cases, break up a cold if applied promptly on its first appearance. If the cold has become deep-seated, it may be very stubborn, and require two or three days of such treatment. Never permit the cold to run its course, for it will surely leave a weakness, and a tendency toward something worse. It may be necessary for the patient to go to bed and remain until the cold is broken up. For persons who are not strong, the rest, together with the treatment, will be the best kind of medicine. If there is any indication of constipation, enemas or a mild laxative such as *cascara sagrada* may be given.

"There are no riches above a sound body, and no joys above the joy of the heart."

To cleanse the nasal passages, make a solution of a teaspoonful of salt, or a teaspoonful of equal parts of salt and baking soda, or equal parts of salt, baking soda, and borax, to a pint of warm water. This may be snuffed from the palm of the hand, or used in a small syringe made for the purpose.

COUGHS AND SORE THROAT

Cough and sore throat often accompany a hard cold. Not infrequently they are the result of an overtaxed, irritated, and inflamed stomach. The condition of the stomach is often indicated by the condition of the mucous membrane of the throat.

Coughs and sore throats which result from colds should be treated the same as a cold. If they do not yield readily to treatment, the throat should be examined by a physician or throat specialist to ascertain if something more serious is not the matter. Coughs are sometimes developed by habit, growing out of a slight irritation, in which case self-control is the best remedy.

REMOVE THE CAUSE

In most cases sore throat may be cured by removing the cause, and by absolute rest. The voice may have been misused in public speaking, or, perhaps, by breathing foul air. Remove the cause, and the trouble will quickly disappear.

LOCAL TREATMENT

1. One of the most effective remedies for sore throat is sipping hot water. Large quantities of hot water sipped frequently during the day will remove irritation, and assist in cleansing the poisons from the system, which were the probable cause of the trouble.

2. Apply fomentations several times during the day,

"Nature, time, and patience are the three great physicians."

either to the chest or throat, according to the location of the difficulty.

3. Frequently a slight, irritating cough is very troublesome at night. Most cases will be relieved by applying a cold compress to the throat. Slight attacks may be relieved by protecting the throat with a woolen cloth.

GARGLES

If the difficulty is chiefly in the throat, it may be relieved by the use of some simple gargle, such as hot water, salt and water in the proportion of one teaspoonful of salt to a pint of water, or equal parts of peroxide of hydrogen or listerine and water.

INFLUENZA—LA GRIPPE

On the first appearance of the symptoms of influenza, the case should be taken thoroughly in hand and the disease broken up, if possible. It should be treated practically the same as a severe cold. The attack is likely to be more stubborn than a cold, requiring more thorough treatment to break it up. In case of fever, cool sponge baths and cool enemas are essential.

NASAL CATARRH

Nasal catarrh may be prevented by the same means which make one practically immune from colds; namely, plain, temperate living, frequent bathing, and exercise. If this troublesome and very common disease makes its appearance, every possible means should be used to effect a cure before it has reached its advanced, chronic stages.

The following suggestions, if carefully heeded, will prove a blessing to the general health, and will usually cure the disease, if it has not reached an advanced stage:—

1. Avoid taking cold; for every cold gives the disease a stronger hold.

"God healeth, and the physician hath the thanks."

2. Eat only plain food, and drink cold water. Avoid rich foods, pastries, sweets, grease, etc.

3. Bathe frequently, so as to keep the skin clean and active.

4. Live in the open air, twenty-four hours of the day, if possible. Walk and work in the sunshine, and sleep where the air is pure.

5. Cleanse the nasal cavities daily with a pint of warm water containing a teaspoonful of salt.

PLEURISY

Put the patient in bed, and apply local treatment for the relief of the pain. Either fomentations, continued for several hours, if necessary, to give relief, or compresses, may be effective. If one does not relieve the pain, try the other, or alternate the hot and cold applications.

CONSTIPATION

This is one of the most fruitful causes of disease. Indeed, a celebrated English physician recently expressed the opinion that it is the greatest of all causes of disease, and that the greatest cause of constipation is the very common neglect to attend regularly and promptly to the calls of nature. The causes of this trouble are many, among which are the following: sedentary habits, concentrated food, rich food, intemperance, neglect to relieve the bowels regularly, and the habitual use of laxatives

As in the case of most other diseases, the remedy lies chiefly in the correction of the habits and practices which caused it. The following simple suggestions will be found practical and effectual in most cases:—

1. With most people the bowels act most readily in the morning soon after breakfast. Set a definite time, and adhere to it strictly, whether there is any inclination or

"Work is the grand cure for all the maladies that ever beset mankind—honest work which you intend getting done."

not. Nature will soon adjust herself to this regularity.

2. Drink plenty of cold water; eat largely of coarse vegetable foods, and juicy, fresh fruits; and avoid animal foods, all rich foods, and tea, coffee, strong drinks, and condiments.

3. The habitual use of purgatives and laxatives is very harmful. If necessary to use a laxative, there is nothing more simple and harmless than *cascara sagrada.* Take a teaspoonful at night before retiring, and the bowels will usually act in the morning. Enemas are also necessary at times, but the enema habit should be avoided.

DIARRHEA

If subject to attacks of diarrhea, be very careful about the diet. An abundance of fruit is loosening to the bowels. Meat, greasy food, and coarse vegetables should be avoided. The different cereal preparations, milk, and eggs are the best foods.

1. One of the simplest and most effective remedies for an acute attack of diarrhea is the hot enema. Administer large ones, retaining as long as possible in the bowels.

2. Slippery-elm enemas are very effective. Pour boiling water over some slippery-elm bark, and allow to stand for a few minutes, then use the infusion for an enema. This is very soothing and healing to the irritated bowels.

3. In severe cases apply hot fomentations to the bowels. Sometimes alternate applications of heat and cold will prove more effective.

STYES

When one is constantly troubled with styes it is almost sure evidence that there is some defect or weakness in the eyes. Consult a competent oculist. Glasses properly fitted to the eyes will often remedy this trouble.

"Bring to your aid the power of the will, which will resist cold, and give energy to the system."

When a sty first begins to make its appearance, apply a bit of camphor to the inflamed spot, being careful not to allow any to get into the eye. This will often disperse it.

Bathing the eye with a solution of boracic acid will also give relief. This is a mild disinfectant and may be used without danger.

CHAFING

Bathe the affected parts frequently with cool water and castile soap, or any pure toilet soap. Or, bathe with a solution of boracic acid. After drying thoroughly, apply finely powdered starch or talcum powder. Keeping the affected parts clean and dry is the best preventive.

HEADACHE

When headache is due to poor circulation, the feet and hands are often cold, while the face is flushed and the head hot. This condition is often the result of heavy mental work, with little physical exercise.

1. When one finds himself in this condition, a hot foot-bath, with cool applications to the head and back of the neck, will nearly always bring relief.

2. A nervous headache may be relieved by drinking hot water, taking a hot foot-bath, and hot and cold applications to the spine. This treatment is soothing to the overwrought nerves.

3. Never sit down immediately to close study after a hearty meal, as this will call the blood away from the stomach, thus retarding digestion, and a dull headache is often the result.

4. When headache is caused by indigestion, hot applications to the stomach, and a copious enema, are good remedies.

5. If subject to headache, be sure to keep the bowels

"If you forget self in your interest for others, you gain a victory over your infirmities."

open, by proper diet, and the use of enemas when necessary. Too much eating with insufficient exercise, improper combinations of food, too great a variety at one meal, the free use of sugar and rich pastries, are almost sure forerunners of the so-called "bilious attack," with its accompanying headache and general ill feelings. Simple, consistent living is nature's great physician.

6. For a severe headache a towel wrung out of hot water and applied to the back of the neck will often give instant relief.

INSOMNIA

Never resort to drugs as a remedy for sleeplessness. Use some of the simple, common-sense remedies that are always at hand.

1. A neutral bath just before retiring is soothing to the nerves. It equalizes the circulation, warms the hands and feet, and induces sleep.

2. A cool hand bath, taken with very little friction, is good if there is not time or opportunity for a neutral bath.

3. Be sure that the last meal is properly digested before retiring. Appease any feeling of hunger by a cup of hot water, hot lemonade, a bit of easily digested fruit, or even a glass of milk sipped slowly.

4. If the head is hot and weary from some mental strain, bind a cold compress around it, and place a bag of hot water to the feet. Then lie down quietly in a favorite position and encourage sleep. If it does not come in due time, try deep breathing. Let each inhalation be slow and steady, filling the lungs to their utmost capacity. This exercise will draw the blood from the head, and give relief to the tired nerves. Sometimes a slight physical exercise, such as regular movement of the toes and fingers, will induce sleep.

Cleanse the fountain if you would purify the stream.
—A. Bronson Alcott

COLIC

This is usually caused by indigestion. Improper combinations of food often cause the formation of gas in the bowels. Speedy relief may be obtained by administering large enemas of warm water to empty the bowels, and by applying fomentations to the abdomen. Also drink freely of hot water.

PRICKLY HEAT

Persons who are troubled with heat rash should be careful about exposing themselves to the intense heat of the sun. Wear clothing next to the body that will not irritate the skin. Fine linen or silk is best for those who are troubled with this disagreeable affection.

When suffering from heat rash, sponge the body with a solution of soda and water. A heaping teaspoonful of soda or saleratus to a pint of water is the right proportion.

Bathe the affected parts with a solution of vinegar and water, or lemon or lime juice and water. Dry gently with a soft towel, as any friction will increase the irritation. When thoroughly dry, apply powder with a powder puff.

CHILBLAINS

Chilblains may affect any part of the body, but most often the feet are the sufferers. They are caused by undue exposure to severe cold. When any part of the body is once frozen, or severely chilled, there is liable to be suffering afterward whenever it is exposed to the cold.

Treat the affected parts by applications of heat and cold. If the feet are suffering, give a hot and cold foot-bath. Place them first in water as hot as can be borne for five minutes, then in very cold water for two minutes. Repeat this several times; then dry and anoint with carbolized vaseline.

"To take a deep breath and hold it will help you to bear pain. A long, deep breath will sometimes stop the hiccoughs."

COLD SORES

Sores on the lips may be caused either by colds or fevers. Whichever the cause, the treatment should be practically the same. They may be greatly relieved, and sometimes checked, by applying strong camphor.

If the lips are badly swollen, apply fomentations. This will greatly relieve the inflammation. Anoint with carbolized vaseline, and cover with absorbent cotton.

CANKER OF THE MOUTH

The small white ulcers which frequently occur in the mouths of children and adults are generally known as "canker sores." They are usually indications of some derangement of the stomach caused by improper diet. They may be caused, also, by the use of strong medicines, especially mercurial preparations.

The first remedial agent should be the removal of the cause, if it can be ascertained. Cleanse the mouth frequently with a strong solution of peroxide of hydrogen or listerine, or wash with a saturate solution of boracic acid. Powdered alum and borax are also good remedies. Mix sulphur and sugar thoroughly and make fine as possible by placing on the bottom of a plate and pressing with a knife blade. Sprinkle this mixture upon the ulcers every hour or two. It is harmless but cleansing.

BOILS AND ABSCESSES

To hasten the process of suppuration in a boil or abscess, apply a hot poultice, or treat by alternate applications of heat and cold. When sufficiently ripe for opening, as may be known when they are soft to the touch, open with a sharp lance. By gentle pressure expel the pus. Hard squeezing is very injurious. After opening, if the discharge is not sufficient to relieve the inflammation, poultice again.

Grin and bear it is the old-fashioned advice, but sing and bear it is a great deal better.—Spurgeon

FELONS

This very painful affection most frequently occurs on the ends of the fingers. In the early stages a felon may sometimes be dispersed by soaking in hot, weak lye. During the process of suppuration, which is often very painful, the inflammation may be somewhat relieved by immersing the hand in water as hot as can be borne. If the hand be carried in a sling, so the pressure of blood in it will not be so great, it will be less painful.

The felon should be opened as early as admissible. Lance to the bone, as the difficulty is under the periosteum, or membrane covering the bone.

INGROWING TOE-NAILS

Care should be used when trimming an ingrowing nail to cut it straight across instead of rounding it at the corners.

If the toe is inflamed and painful, a hot foot-bath employed several times a day is the best remedy.

Before retiring apply a hot poultice. If the nail is cutting into the toe, scrape it in the middle until very thin, or cut one or two grooves lengthwise in the nail, then gently raise the corners, and place underneath them small bits of cotton, or silk floss. The nail must be kept from pressing upon the tender flesh.

The shoes worn should be large enough so as not to press hard upon the troublesome nail.

CORNS

These are usually caused by either tight or ill-fitting shoes. Sometimes a shoe that is too large will rub and irritate the toes, and cause corns, as quickly as a tight one. Remove the cause, and then treat the corn.

Before retiring soak the feet in hot water, then apply

"Those who are not in health usually have impurities of the blood."

a piece of lemon to the corn and bind it on. After repeating this process three or four times, the corn may be removed with the point of a sharp penknife.

Soda or saleratus, moistened with a little water, and bound on to the corn, is also an effective remedy.

After removing the corn, use a corn plaster to prevent further pressure and friction.

CROUP

This ailment is often a serious one, and should not be trifled with. If the case seems severe, a physician should be called promptly.

Sometimes quick relief may be obtained by the use of fomentations to the throat as hot as can be borne. If this is not successful, try cold applications. Ice compresses may be used with good results.

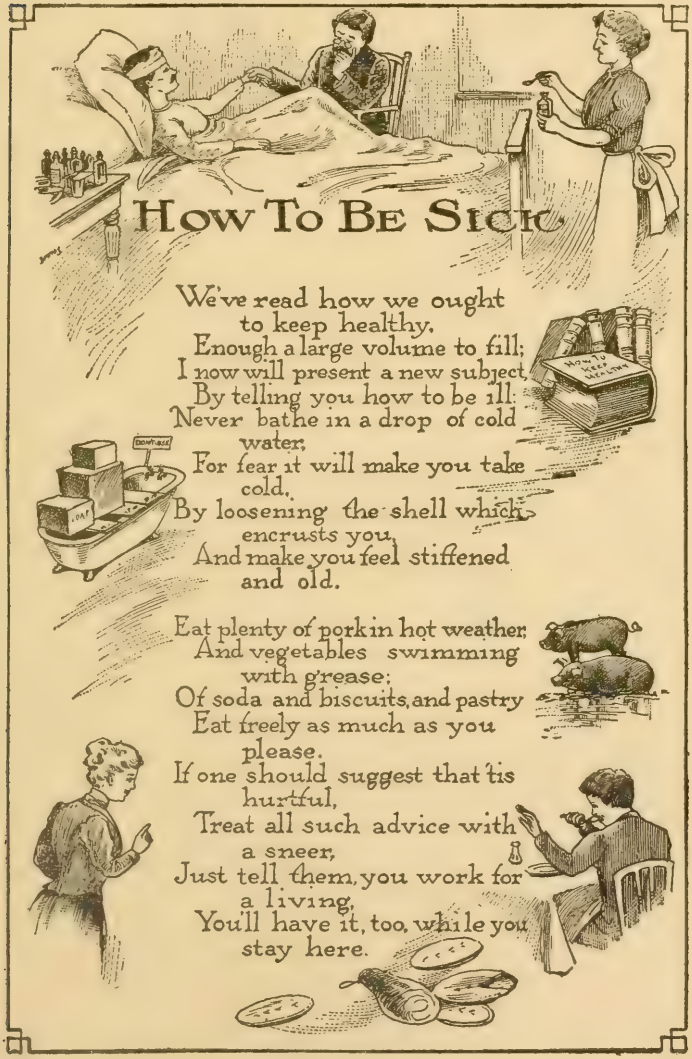
An onion poultice is often successfully used, giving speedy relief. Slice the onions, or, better still, chop them fine and place them in a frying-pan containing a little hot oil. Stir until they are thoroughly heated through, then place in a cheese-cloth bag and apply as hot as can be borne.

EARACHE

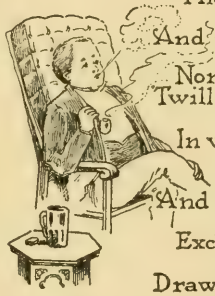
This is frequently a very obstinate difficulty. The best treatment for most cases is hot fomentations or other hot applications, as described under "Rational Remedies," applied over the ear and the whole side of the face. This treatment may be more successful if accompanied by general hot treatment, such as a hot bath, vapor bath, sitz bath, or fomentations to the chest or spine.

As diseases of the ear frequently result in deafness, the importance of avoiding the causes of such difficulties is evident. The most common causes are colds in the head and a diseased condition of the teeth.

Every sick man is a rascal.
—Dr. Abernethy



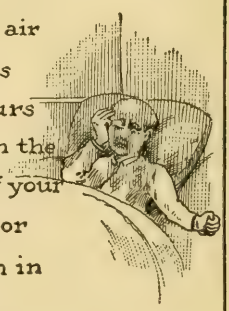
Habit, with its iron sinews,
Clasps and leads us day by day.—Lamartine



If it brings on a pain in your
stomach,
Procure some fine-cut and
a pipe,—
Tobacco is good for dyspepsia,
Then use it from morning
till night.
And now and then drink some
drugged liquor,
Nor mind if teetotlars scold,
Twill drive out the heat in the
summer,
In winter twill keep out the
cold.



And when you retire, close
the windows,
Exclude all the evening air
quite,
Draw closely the curtains
around you,
And thus pass the hours
of the night;
Then stupid and dull in the
morning,
Crawl languidly out of your
bed,
Drink a cup of strong tea or
coffee,
To ease the sharp pain in
your head.

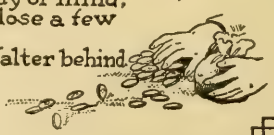




Keep storming or scolding at
trifles,
No matter where blame
may belong,
All accidents lay onto some one,
Though no one but you
may be wrong;
And never take time from
your labors,
To rest either body or mind,
For fear you may lose a few
dollars,
Or fortune may falter behind.







"They that will not be counseled, can not be helped."



When nature can hold out
no longer,
But sinks 'neath a press-
ure of ills,
Then add some more weight
to her burden
By taking a portion of pills.
If then she refuses to labor,
Why, just let a doctor pres-
cribe,
He'll add to your system more
poison,
And charge you a round sum
beside.



Do this till you have to give
under,
And nature is worn to
the quick,
Then at a kind providence
murmur,
And wonder why 'tis you
are sick.
Search almanac, pamphlet,
and paper,
Take every quack nostrum
you find,
And thus in the prime of
your manhood
You'll ruin both body and
mind.





Your thoughts will whirl
round in confusion,
Your form with disease
will be bowed,
And thus e'er your days are
half numbered,
You'll need both coffin and
shroud.
Your neighbors will gather
around you,
And wonder why death
thus should come;
They'll call it a "sad dispensation,"
And lay you away in the tomb.

—C. M. Willis







HOME LOVE

True love begins at home, and, reaching thence,
Twines sympathetic arms round all our race,
And fills our interval of time and sense
With airs from heaven, its native dwelling-place.

Love's royal banner floats above our heads;
Beneath its folds majestic do we rest,
Home's window-star its radiance outward sheds,---
Come in, lone heart, be thou a welcome guest.

Swing back, ye cloudy curtains, from the skies,
And let me see the architecture fine
Of those transparent palaces that rise
Where crystal streets in wondrous brilliance shine.

But little like them can I hope to build,
And yet in meek resemblance I would raise
A home with their transmitted luster filled,
Whose walls shall echo to Immanuel's praise.

For home shall be a type of that above,
Like Israel's desert temple long ago,
Built of the same grand masonry of love,
As that bright dwelling-place to which we go.

---T. R. Williamson

General Index

A

Abscesses, 558.
Acid burns, 538.
Acid fruits, value of, 256.
Activity of childhood, 457.
Air-chamber, in walls of house, 35, 36.
Air, how much required, 335.
Air, how to provide for, 42.
Air, importance of pure, 333.
Alcohol, an antiseptic, 312.
Alcohol, effect on blood, 311.
Alcohol, effect on digestion, 311.
Alcohol, effect on heart, 311.
Alcohol, effect on nerves, 311.
Alcohol, nature of, 309.
Alcohol, testimonials concerning, 314.
Alcoholic drinks, 308.
Alpaca, to clean, 170.
Aluminum ware, 128.
Animal food, diseased, 261.
Animals, have consumption, 263.
Antiseptic, alcohol, 312.
Ants, how to destroy, 210.
Apples, dried, to cook, 283.
Apple sayings, 235.
Apple, staple fruit, 234.
Apricots, dried, to cook, 282.
Architecture, plain, 33.
Ashes, a disinfectant, 528.

B

Baby, a precious burden, 433.
Baby, attention to, 444.
Baby, bad habits of, 439.
Baby, bathing, 443.
Baby, regularity in feeding, 441.
Baby, simple diet for, 441.
Baby, the, 437-444.
Baby, time to train, 438.
Baby's eyes, care of, 442.
Baby's clothing, 439.
Baby's exercise, 361.
Baby's food, 440.
Baking, 273.
Baking, dried fruit, 284.
Baking powders, 241.
Bananas, very nutritious, 237.
Barn, appearance and care of, 32.
Barns, sanitary condition of, 58.
Basement, height of, 36.
Bath, foot, 507.
Bath, full, 503.
Bath, leg, 507.
Bath, neutral, 379, 504.
Bath, powder for, 380.
Bath, sitz, 506.
Bath, solution, 533.
Bath, sponge, 502.
Bath, sponge in bed, 503.
Bath, sun, 510.
Bath, vapor, 505.
Bathing, 375-380.
Bathing, a good exercise, 361.
Bathing, conveniences for, 375.
Bathing, daily, 377.
Bathing, directions for, 378.
Bathing, for sick or well, 377.
Bathing, general suggestions on, 379.
Bathing, hand bath, 378.
Bathing, misery of uncleanness, 376.
Bathing, the baby, 443.
Bathing, the importance of, 375.
Bath-room, 46.
Bath-room and toilet, 113-116.
Bath-room, care of, 114.
Bath-room, furnishings, 114.

Bath-room, location of, 113.
Bath-room, well fitted, 113.
Baths, cold, 379.
Baths, warm and hot, 379.
Bath-tub, how to clean, 115.
Bedbugs, to get rid of, 212.
Bed, coverings, 82.
Bed, for sick, 523.
Bedding, to disinfect, 533.
Beds, feather, 81.
Beds, how to make, 111.
Beds, iron, 81.
Bed-room, parlor, 104.
Bed-rooms, 109-112.
Bed-rooms, cleaning, 178.
Bed-rooms, damp, unventilated, 37.
Bed-rooms, dimensions of, 109.
Bed-rooms, doors and windows of, 110.
Bed-rooms, morning work, 111.
Bed-rooms, ventilation of, 109.
Bed-springs, 81.
Bedsteads, brass, to polish, 188.
Beer, cause of gout, 313.
Beer, testimonials concerning, 313.
Bichloride, a disinfectant, 530.
Bites of animals, 544.
Bites, snake, 545.
Blackheads, 387.
Blankets, woolen, to wash, 149.
Bleaches, beware of, 393.
Blood stains, to remove, 163.
Boiler, care of, 159.
Boiling, 272.
Boiling, water, 74.
Boiling the clothes, 144.
Boils, 558.
Bookcases, 43.
Books, bad, 424, 480.
Books, clean with bread, 218.
Books, to disinfect, 534.
Borax, in starch, 156.
Borax, the value of, 157.
Boric acid, a disinfectant, 530.
Boy, the little, 449-452.
Boy, wanted a, 449.
Boys, barefoot, 454.
Boys, come, 465.
Boys, confidence in, 451.
Boys, early responsibility, 451,
Boy's education, 449.
Boys, learn from mother, 452.
Boys, neglecting, 450.
Boys, program for, 450.
Boys, underclothing, 454.
Boys, what to teach, 450.
Braizing, 273.
Brandy, effect on nerves, 314.
Brass, to clean, 128, 187.
Bread, care of, 240.
Bread, graham, 240.
Bread, how to make, 239, 240.
Bread, hot, 241.
Bread, staff of life, 238.
Bread, stale, for cleaning, 218.
Bread, sour, 244.
Bread, whole wheat, 240.
Breakfast food, grains, 232.
Breathing exercises, 353.
Brick, to clean, 217.
Broiling, 273.
Bronze, to clean, 224.
Broom, covers for, 96.
Bruises, 543.
Brushes, for hair, 392.
Building, good plaster for, 42.
Building, inside finish, 38, 43.
Building, material for, 35.
Building, plain architecture, 33.
Building site, vital consideration, 31.
Building site, the, 31, 32.
Building, suggestions on, 33-48.
Burns, 536.
Burns, acid, 538.
Burns, ointment for, 538.

Burns, serious, 537.
Butter, 244.
Butters and marmalades, 284.

C

Cake, 243.
Calcimined walls, smoke on, 184.
Canker of the mouth, 558.
Canning, fruit, 189-196.
Canning, figs, 192.
Carbolic acid, a disinfectant, 529.
Carpets, 75.
Carpet, salt for cleaning, 97.
Carpet-sweepers, 96.
Cashmere, to clean, 170.
Catarrh, nasal, 552.
Ceilings, height of, 39.
Cellar, cleaning the, 175.
Cellar, in cottage, 40.
Cellar, the, 135, 136.
Cement houses, 36.
Cement in mortar, 42.
Cesspools, 51.
Cesspools, how to build, 52.
Cesspools, ventilators, 53.
Cesspools, when admissible, 52.
Chafing, 555.
Chamois skin, 217; to wash, 155.
Charcoal, a disinfectant, 528.
Cherries, dried, to cook, 284.
Chickens, diseased, 265.
Chilblains, 557.
Child, cost of a, 491.
Children, a blessing, 495.
Children, a sacred responsibility, 433-436.
Children, activity of, 457.
Children, charms of, 492.
Children, confidence of, 470.
Children, from home nights, 459.
Children, no time for, 435.
Children, reading supervised, 479.
Children, respect for, 494.
Children, responsibility of, 462.
Children, trust the, 496.
Children, visiting, evils of, 459.
Children's playmates, 458.
Children's work, 461-466.
Child's clothing, 453.
Chimney, on fire, 126.
Chimney, to clean, 126.
Chimneys, precaution against falling, 42.
Chimneys, to prevent damp, 36.
Chinaware, care of, 122.
Chocolate, 306.
Choking, 543.
Cigarette, a mathematician, 326.
Cigarette, smoking, 322.
Cigarette smoking, increase of, 322.
Cistern, not in cellar, 136.
Cisterns, 67.
Cleaning, bath-tub and wash-bowl, 115.
Cleaning, bedrooms, 178.
Cleaning, brass, 187.
Cleaning, dirty surfaces, 183.
Cleaning fluid, for clothing, 174.
Cleaning fluid, good, 166.
Cleaning, glass, 183.
Cleaning, the yard, 177.
Cleaning, living-rooms, 179.
Cleaning, plaster casts, 188.
Cleaning, the garret, 177.
Cleaning, the woodshed, 176.
Cleaning, white fur, 172.
Cleaning, willow furniture, 188.
Cleaning, windows, 181.
Cleanliness, 86.
Cleanliness and order, 85-92.
Cleanliness, in sick-room, 525.
Cleanliness, of hair, 390.
Clock cleaning, easy, 220.
Closets, 112.
Clothes cleaning, 167-174

Clothes, colored, to wash, 146.
Clothes, men's clothing, 167.
Clothes, on fire, 539.
Clothing, change of, 406.
Clothing, Chinese philosophy, 407.
Clothing, extremities, children, 453.
Clothing, for baby, 439.
Clothing, gay, 456.
Clothing, how to support, 402.
Clothing, improper, 428.
Clothing, object of, 398.
Clothing, proper distribution of, 403.
Clothing, the child's, 453.
Clothing, restricted, 408.
Clothing, the extremities, 404
Clothing, principles of, 398.
Clothing, tight, 399, 456.
Coats, how to fold, 168.
Cocaine, 306, 518.
Cocoa, 306.
Coffee, 304.
Coke, as fuel, 127.
Cold cream, 389.
Colds, 548.
Colds, cause of, 548.
Colds, from fear of ventilation, 338.
Colds, prevention of, 548.
Colds, treatment of, 549.
Cold sores, 558.
Colic, 557.
Collars, high, 405.
Colored clothes, to wash, 146.
Condiments, 297-302.
Condiments, aid to impurity, 425.
Condiments, false flavor, 299.
Condiments, nature of, 299.
Combinations of foods, 294.
Combs, for hair, 392.
Companion, mother, 447.
Companions, evil, 425.
Compresses, 508.
Confidence, value of, 451.
Constipation, 553.
Consumption, among animals, 263.
Convulsions, 546.
Cooking, 269-286.
Cooking, a fine art, 271
Cooking, dried fruit, 281
Cooking fruit, 280.
Cooking fruit, in jars, 190.
Cooking grains, 279.
Cooking, helpful hints on, 285.
Cooking, slow, 274.
Cooking, unscientific, 272.
Cooking vegetables, 278.
Copper, to clean, 128.
Copperas, a disinfectant, 529.
Corns, 559.
Cosmetics, 384.
Cottage, ground plan, 41.
Cottage, one-story, 40.
Coughs, 551.
Country homes, 29.
Courtesy, in praise of, 483.
Courtesy, polite answers, 481.
Courtesy, true, 481-484.
Courtships, loose, 426.
Crackers, 242.
Crickets, 215.
Croup, 560.
Crumbs, 108.
Culture, physical, 351.
Cupboards, 44.
Cupboard, emergency, 535.
Cupboards, fresh air, 44.
Cupboards, stove, 45.
Curling iron, 393.
Curtains, for windows, 76.
Cut glass, to clean, 131.
Cuts, 542.

D

Dampness, how to guard against when building, 36.
Damp rooms, 338.

Decayed teeth, 414.
Deportment of children, 482.
Diarrhea, 554.
Diet, effect on mind and body, 256.
Diet, in hot weather, 255
Diet, simplicity of, 291.
Dinner, man's point of view, 297.
Dining, items on, 297.
Dining, the art of, 285-298.
Dining-room, attractive, 288.
Dining-room, construction and furnishing, 106.
Dining-room, care of, 107.
Dining-table, 288.
Discipline, 467-476.
Discipline, carelessness in, 474.
Discipline, how early, 468.
Discipline, importance of, 416.
Discipline, quiet, patient, 438.
Discipline, slamming doors, 474.
Discipline, with mercy, 467.
Disease, from filthy surroundings, 57.
Disease of animals, 262.
Disease, treatment of, 547-568.
Disease, treatment of, caution, 547.
Dish-cloth, care of, 123.
Dishes, metal, to clean, 129.
Dish towels, 123.
Dish washing, 121.
Dish washing, novel suggestion, 123.
Disinfect, bedding, 533.
Disinfect, books, 534.
Disinfect, clothing, 533.
Disinfect, plumbing, 531.
Disinfect, premises, 533.
Disinfect, sick-room, 532.
Disinfect, sick-room utensils, 531.
Disinfect, the hands, 532.
Disinfect, wounds, 533.
Distilling water, 74.
Dissipated, very, 231.
Disinfectant, ashes, 528.
Disinfectant, boric acid, 529.
Disinfectant, bichloride of mercury, 530.
Disinfectant, carbolic acid, 529.
Disinfectant, charcoal, 528.
Disinfectant, dry earth, 528.
Disinfectant, formaldehyde, 529.
Disinfectant, heat, 528.
Disinfectant, lime, 529.
Disinfectant, permanganate of potash, 530.
Disinfectant, sal soda, 528.
Disinfectant, sulphur, 529.
Disinfectant, sunshine, 528.
Disinfectants, 527-534.
Disinfectants, poison, 527.
Doctor, when to call, 521.
Don'ts for housekeepers, 225, 226
Don'ts for parents, 497, 498.
Door fasteners, simple, 523.
Doors, how to adjust, 218.
Drainage, around the house, 31.
Drains, 59.
Draughts, danger from, 339.
Dress, evils of fashionable, 397.
Dress, gay, for child, 456.
Dress, healthful, 397-408.
Dress, length of, 405.
Dresses, thin, to launder, 154.
Dried fruit, to cook, 281.
Dried fruit, preparation to cook, 281.
Drinking at meals, 293.
Drinks, fruit, 329.
Drinks, grape juice, 328.
Drinks, hot, 329.
Drinks, iced, 329.
Drinks, lemonade, 328.
Drinks, mixed fruit, 329.
Drinks, oatmeal, 327.
Drinks, refreshing, 327.
Drugs, 515-520.
Drugs, American curse, 516.

Drunkenness, how to cure, 302.
Drunkard, stomach of, 312.
Dust, 93.
Dust from the street, 29.
Dusting, 97.
Dyspeptics, a nation of, 230.

E

Earache, 560.
Ear, care of the, 417.
Ear, foreign bodies in, 544.
Ear, pulling or boxing the, 418.
Eating between meals, 291.
Eating, regularity in, 289.
Eating, take time for, 289.
Eating, the proper amount, 292.
Eating, to live, 257.
Eating, too fast, 293.
Eating, too frequently, 290.
Economy, 167.
Education, 477-480.
Education, fundamentals of, 478.
Education, practical, 478.
Education, importance of, 446.
Education, painstaking, 449.
Eggs, 247.
Eiderdown, to clean, 150.
Electricity for lighting, 39.
Emergency cupboard, 535.
Emergency treatments, 535-546.
Enameled ware, 127.
Encaustic, how to make, 184.
Enema, 512.
Energy, value of, 371.
Evil thoughts, 422.
Evil thoughts, prevention of, 423.
Example of parents, 472.
Exercise, 343-362.
Exercise, a full chest, 358.
Exercise and recreation, 457-460.
Exercise, beneficial to bones, 357.
Exercise, best kind of, 346.
Exercise, best time for, 345.
Exercise, breathing, 353.
Exercise, correct standing position, 352.
Exercise for cold hands, 360.
Exercise for cold feet, 359.
Exercise for the baby, 361.
Exercise for the sick, 361.
Exercise for thin and stout, 358.
Exercise, gardening, 346.
Exercise, graceful poise, 358.
Exercise, heavy gymnastics, 350.
Exercise, labor and study, 360.
Exercise, laughter, value of, 359
Exercise, physical culture, 351.
Exercise, rowing, 238.
Exercise, rules for erect carriage, 355.
Exercise, sawing wood, 347.
Exercise, suggestions to women, 357.
Exercise, swimming, 349.
Exercise, the law of life, 343.
Exercise, walking, 347.
Explosives, caution against, 217.
Eyes, dirt in, 417, 544.
Eyes, glasses for, 416.
Eyes, the care of, 415.
Eyes, to strengthen, 416.

F

Face, care of, 384.
Fading, to prevent, 152.
Fainting, 540.
Falsehood, 474.
Falsehood, taught by punishment 472.
Family worship, 485-490.
Fashionable Dress, 399.
Fats, digestion of, 245.
Fats, necessary, 245.
Faucets, leaking, 139.
Feather beds, 81.
Feet, clothe warm, 455.
Feet, well clad, 404.

Feet, wet, 455.
Felons, 559.
Figs, how to can, 192.
Filters, for water, 73.
Finish for house, 38, 39.
Fire, clothes on, 539.
Flannels, to wash, 147.
Flat-irons, to clean, 158.
Fleas, how treat, 213.
Fleas, to fence out, 214.
Flesh food, classified, 259.
Flies, filthy intruders, 198.
Flies, remove attractions for, 199.
Flies, to drive away, 200.
Floors, above cellars, 136
Floors, border for, 101.
Floors, care of, 99-102.
Floors, how to finish, 39.
Floors, how to oil, 99.
Floors, of kitchens, 118.
Floors, oiled, care of, 99.
Floors, painting and covering, 48.
Floors, painted and varnished, 100.
Floors, to clean grease from, 101.
Floors, waxed, care of, 99.
Flowers, in sick-room, 526.
Flue, care of, 125.
Fly-paper, 200.
Fly-paper, to detach, 222.
Fly specks, to remove, 187.
Fly traps, 199.
Fomentations, 508.
Food for the baby, 440.
Food, highly seasoned, 301.
Food, mix good sense with, 229.
Foods, preparation of, 274.
Food, proper combinations of, 294.
Food, proper kinds, 229.
Food, rich, tends to impurity, 425.
Food, simple, for sick, 523.
Foods, soft, mushy, 253.
Foods, table of values, 266.
Foot-bath, 507.
Forgetfulness, 475.
Formaldehyde, a disinfectant, 529.
Foul odors, 140.
Freckles, 386.
Freezing, pipes, 139.
French windows, 37.
Fretting, not worth while, 85.
Fruit canning, 189-196.
Fruit, cooked in jars, 191.
Fruit, cooking, 280.
Fruit drinks, 329.
Fruit for canning, 189.
Fruit, how to peal, 193.
Fruit, how to open, 194.
Fruit jars, how to fill, 193.
Fruit jars, to clean, 190.
Fruit jars, to prevent cracking, 192.
Fruit jars, sealing, 191.
Fruit, preparation to can, 189.
Fruit, prepare for jars, 190.
Fruit stains, on silk or linen, 172.
Fruit, to keep fresh, 237.
Fruits, acid, 256.
Fruits, cooked, 233.
Fruits, decayed, 233.
Fruits, original food, 231.
Fruits, overripe, 233.
Fruits, raw, 233.
Frying, 274.
Full bath, 503.
Furnishing, a fine art, 75.
Furnishing the home, 75-82.
Furnishings of the bath-room, 114.
Furniture of kitchen, 119.
Furniture, ornaments on, 78.
Furniture, plain, 77.
Furniture polish, 185.
Furniture, polished, to clean, 186.
Furniture, removing varnish from, 186.
Furniture, repairing, 185-188.
Furniture, sanitary, 80.

Furniture, to remove spots from, 185.
Furniture, upholstered, 79.

G

Gargles, 552.
Garret, how to clean, 177.
Gas mantel, to renovate, 223.
Gasoline range, 120.
Gas pipes, to find leak in, 223.
Gas poisoning, 540.
Gems, how to make, 242.
General suggestions, 491-496.
Gilt frames, to clean, 187.
Girdle, wet, 508.
Girl, the little, 445-448.
Girls, come, 466.
Girls, education of, 445.
Girls, learn from mother, 448.
Girls, physical training of, 445.
Girls, what to teach, 447.
Glass, cut, 131.
Glass, to clean, 183.
Gloves, black kid, to clean, 174.
Gloves, kid, to clean, 173.
God's sweetest gift, 436.
Good food, 229-256.
Graham bread, 240.
Grains, cooking of, 279.
Grains, nutrition of, 232.
Grains, original food, 231.
Granite ware, for cooking fruit, 193.
Grapes, dried, to cook, 284.
Grape juice, 328.
Grape juice, unfermented, 194.
Grape wine, high grade, 195.
Grass, around the house, 60.
Grass stains, to remove, 161.
Grease, spilled on stove, 131.
Grease spots on carpet, 222.
Grease spots on floor, 222.
Grease spots, to remove, 165, 171.
Grease, to clean from floors, 101.
Griddle cakes, 253.
Gymnastics, heavy, 350.

H

Habit, good one, 396.
Habits, bad, 439.
Hair, baldness, 390.
Hair, brushes and comb, 392.
Hair, care of, 389.
Hair, clean, 390.
Hair, combs for, 392.
Hair, dying the, 392.
Hair, gray, 390.
Hair, shampoo of, 391.
Hair, splitting, 393.
Hair tonic, recipe for, 394.
Hair, to untangle, 393.
Hands, care of, 394.
Hands, to disinfect, 532.
Hard water, to cleanse, 158.
Hat, crushed, to restore, 168.
Hats, straw, to clean, 171.
Headache, 555.
Head lice, 215.
Heat, a disinfectant, 528.
Heat and cold, 501.
Heat, dry, 514.
Heat, overheated room, 339.
Health, enemies of, 383.
Health, rules of, 22.
Health, the value of, 20.
Healthful surroundings, 57-64.
Hemorrhages, 541.
Hen-houses, 59.
Hiccoughs, 546.
Home, anchorage of youth, 18.
Home, eulogy of, 15.
Home, keepers at, 98.
Home, liberty in the, 17.
Home, love for, 17.
Home, the, 25-82.
Home, the location, 27-30.
Home treatments, 521.
Home, well-ordered, 17.

Home-making, an art, 15.
Homes, country, 29.
Hope, 367.
Hopper for slops, 51.
Hot drinks, 329.
House, arrangement of rooms, 38.
House, a quiet, 493.
House cleaning, 175-184.
House cleaning, done systematically, 175.
House cleaning, reward of, 184.
House cleaning, time for, 175.
House, inside finish, 38, 39.
House, material for, 35.
House, one or two stories, 34.
House, protected from storms, 32.
House, relation to outbuildings, 32.
House, which way to face, 32.
Housekeepers, don'ts for, 225, 226.
Housekeeper's wisdom, 84.
Housekeeping, general, 83-226.
Housework, love of, 16.

I

Iced drinks, 329.
Idleness, 422.
Idleness, the vice of, 464.
Impurity from books, 424.
Impurity from familiarity, 429.
Impurity from loose courtships, 426.
Impurity, seeds of, 421.
Impurity, soil for, 421.
Influenza, 552.
Ingrowing toe-nails, 559.
Injustice, an, 462.
Ink stains, to remove, 164, 173.
Insects, silver fish, 208.
Insects, silver moths, 208.
Insomnia, 556.
Intemperance, a highroad to, 517.
Iodine stains, to remove, 164.
Ironing, 153.
Ironing-board, to dress, 159.
Iron rust, to remove, 162.
Ising-glass, to clean, 126.
Items on dining, 297.

J

Jars, family, 296.
Jars, for canning, 190.
Javelle water, 124.
Javelle water, recipe for making, 166.
Jokes, improper, 428.

K

Kettles, burned, 130.
Kettles, how to clean, 122.
Kid gloves, to clean, 173.
Kid shoes, to clean, 174.
Kitchen and pantry, 117-134.
Kitchen, cleaning the, 180.
Kitchen, cover for floors, 119.
Kitchen, finish of, 119.
Kitchen, kind of floor, 118.
Kitchen utensils, 121.
Kitchen, well-arranged, 117.
Kitchen work, 121.
Kneading, 275.
Knives, kitchen, 130.

L

Lace, black, to restore color, 170.
Lace, unstarched, to iron, 155.
Lace veils, to clean, 151.
Laces, to wash, 151, 152.
Lacing, disfigures, 400.
Lacing, evils of, 408.
Lacing, harmful results of, 401.
La grippe, 552.
Lampburners, cleaning, 125.
Lamps, care of, 124.
Language, loose, 423.
Laundering, 141-160.
Leaking joints, 139.
Leg bath, 507.

Legumes, comparative table, 246.
Legumes, dry, 278.
Legumes, peas, beans, lentils, 246.
Lemonade, 328.
Lice, head, 215.
Lighting, 39.
Lime, a disinfectant, 529.
Lime, in basements, 36.
Limewater, recipe for, 132.
Linens, embroidered, to wash, 151.
Linen, to wash, 150.
Linens, to dry, 151.
Linoleum, 76.
Linoleum, to clean, 101, 132.
Liquor statistics, 315.
Living-rooms, 103-108, 179.
Living-rooms, care of, 43, 104, 105.
Living-rooms, construction and furnishing, 104.
Living-room, corner of, 43.
Location of home, 27-30.
Locations to be avoided, 27, 28
Lotion, cucumber, 386.
Lotions, harmful, 390.
Love, practical, 481.
Love, tact, confidence, 487.

M

Mahogany, to remove stains from, 188.
Manners, ill, 473.
Manners, at table, 482.
Mantel, 43.
Marble, to clean, 186.
Marking linen, 155.
Married people, familiarity of, 429.
Matting, for floors, 76.
Mattresses, sanitary, 81.
Mattresses, wire, 81.
Meals, proper number of, 290.
Measures, standard, 275.
Meat, diseased, 259.
Medicines, patent, 517.
Mice, to clear out, 206.
Mildew, to remove, 161.
Milk and disease germs, 251.
Milk, easily contaminated, 250.
Milk, summary on use of, 252.
Milk, value as food, 249.
Mirrors, care of, 182.
Miscellaneous recipes, 217-224.
Mopping, 100.
Mortar, for chimneys, 42.
Mosquitoes, habits of, 201.
Mosquitoes, in bedroom, 206.
Mosquitoes, in Havana, 205.
Mosquitoes, menace to life, 200.
Mosquitoes, rid your place of, 202.
Mosquitoes, to get rid of, 204.
Mosquitoes, to screen against, 205.
Mosquitoes, breeding places for, 203.
Mother, the boy's first teacher, 452.
Mother, girl's first teacher, 448.
Mother's companionship for girls, 447.
Mother's, no care like, 436.
Mother's opportunity, 437.
Moths in furniture, 208.
Moths, precautions against, 209.
Moths, silver, 208.
Moths, to get rid of, 207.
Mucilage, to make, 220.
Mud stains, to cleanse, 164.
Mush, 253.

N

Napkin rings, simple, 222.
Nasal catarrh, 552.
Nature's vital forces, 21.
Nausea, 546.
Nervousness, sister to worry, 366.
Neutral bath, 504.
Nickel, care of, 129.
Nicotine, deadly poison, 315.
Nicotine, per cent in tobacco, 315.

Nosebleed, 541.
Nose, foreign bodies in, 544.
Nursing-bottle, 442.
Nuts, 248.

O

Oatmeal drink, 327.
Object-lesson, an, 486.
Obesity, how to cure, 298.
Odors, foul, from plumbing, 140.
Odors, unpleasant, 224.
Oilcloth, to clean, 101, 132
Oil, for lamps, 124.
Oil, on silk or linen, 172.
Oil rub, 510.
Ointment for burns, 538.
Opium, 518.
Opium, effects of, 307.
Opium, where obtained, 306.
Order, at worship, 486.
Order, importance of, 16.
Order, in daily work, 87.
Order, in praise of, 92.
Order of daily program, 88.
Order, the right, 88.
Ornaments, 78.
Overeating, 292, 300.

P

Pain, natural antidote for, 501.
Paint for kitchen floor, 118.
Paint for plastered wall, 38.
Paint, on brick walls, 36.
Paint, on silk or linen, 172.
Paint, remove from glass, 182.
Paint spots, to remove, 171.
Painting floors, 48.
Painting, inside, 48.
Painting, outside, 47.
Pantry, care of, 132.
Pantry, cleaning, 180.
Pantry, keep tidy, 133.
Pantry shelves, 134.
Parental control, 459.
Parents, don'ts for, 497, 498.
Parents, ignorance of, 426.
Parents, neglect of teaching, 426.
Parents, responsible, 495.
Parents, wise, 492.
Paregoric, 519.
Parlor, a useless room, 103.
Pastes, for the teeth, 413.
Pastry and cake, 243.
Patent medicine, 517.
Peaches, dried, to cook, 283.
Pearline, how to make, 158.
Pears, dried, to cook, 283.
Pennyroyal, for mosquitoes, 206.
Pepper, 300.
Peroxide of hydrogen, a disinfectant, 530.
Pests, 197-216.
Pests, home built for, 197.
Pests, to build against, 38.
Pests, where found, 198.
Pets, clean homes for, 63.
Picric acid for burns, 538.
Picture-frames, to protect, 223.
Piety, the pivot of, 489.
Pig-pens, 59.
Pipes, frozen, 139.
Pipes, stoppage in, 138.
Pitch, on silk or linen, 172.
Physical culture, 351.
Plaster casts, to clean, 188.
Plastering for cottage, 42.
Play, best kind of, 463.
Playmates for children, 458.
Pleasure, a wellspring of, 437.
Pleurisy, 553.
Plumbing, 47.
Plumbing, care of, 137-140.
Plumbing, prompt attention to, 140.
Plumbing, sanitary, 49,
Plumbing, to disinfect, 531
Plush, to clean, 170.
Poisoned by drugs, 520.

Poison, disinfectants, 527.
Poisoning by smoke or gas, 540.
Polish for furniture, 185.
Polite answers, 481.
Porcelain ware, for cooking fruit, 193.
Pores, enlarged, 387.
Potash, a disinfectant, 530.
Potatoes, ways to cook, 277.
Potpourri, how to make, 221.
Poultice, bread and milk, 513.
Poultice, charcoal, 514.
Poultice, linseed, 513.
Poultice, mustard, 513.
Poultices, 513, 514.
Powders, dangerous, 520.
Powder for teeth, 413.
Powder, good for bath, 380.
Practice, a bad, 479.
Practice, a debasing, 459.
Praise, a word of, 493.
Prayer, 89.
Prayer, A B C of, 488.
Prayer, a child's, 490.
Premises, to disinfect, 532.
Prickly heat, 557.
Program, daily, 88-91.
Prunes, dried, to cook, 283.
Pumice-stone, for scraping dishes, 131.
Punishment, arbitrary, 469.
Punishment, corporal, 467.
Punishment, summary, 469.
Punishments, tactful, 473.
Punish, offending member, 475
Purity, definition of, 429.
Purity in the home, 419.
Purity, the standard of, 427.
Purity, the strength of, 419.

Q

Quarreling, 473.
Quassia chips, for mosquitoes, 206.

R

Rain-water, 71.
Raisins, to cook, 284.
Range, gasoline, 120.
Range, kitchen, 120.
Rational remedies, 501-514.
Rats, to clear out, 206.
Reading, restrictions on, 480.
Reading, the child's, 479.
Recipes, miscellaneous, 217-224
Refreshing drinks, 327-330.
Refuse, provisions for, 64.
Register, 35.
Remedies, better, 520.
Remedies, natural agents, 501.
Remedies, nature's forces, 21.
Repairing furniture, 185-188.
Repairs, while house cleaning, 180.
Reservoirs, unprotected, 67.
Respect for children, 494.
Respiration, when walking, 348.
Responsibilities, early, 462.
Responsibility of boys, early, 451.
Rest, 363-374.
Rest, a merry heart, 367.
Rest awhile, 372.
Rest, early to bed, 371.
Rest, in sleep, 369.
Rest, learn to say no, 374.
Rest, live a day at a time, 365.
Rheumatism, cause of, 306.
Ribbons, how to clean, 171.
Rinsing the clothes, 145.
Roaches, to exterminate, 211.
Roasting, 273.
Rolls, how to make, 242.
Room for sick, 521.
Rooms, arrangement of, 38.
Rooms, overheated, 339.
Rowing, good exercise, 348.
Rubber, how to mend, 220.
Rubbing the clothes, 145.

Rubbish around the house, 63.
Rules, cast iron, 18.
Rules of health, 22.
Rusty nails, wounds from, 542.

S

Sabbath worship, 489.
Salt glow, 511.
Sal soda, a disinfectant, 528.
Satin and taffeta, to clean, 169.
Screens, 199.
Scorched linen, 155.
Scotch oats, for man, 257.
Sealing fruit-jars, 191.
Sealing-wax, for jars, 196.
Septic tank, 53-56.
Sewerage, 49-56.
Sewerage, city, 49.
Sewerage, septic-tank, 53-56.
Sewer pipes, 50.
Sewing machine, how to clean, 219.
Shades for windows, 76.
Shade trees, 60.
Shame, a modern, 461.
Shampoo, 391.
Sheets, how to hang on line, 146.
Shoes, tight, 455.
Shrubs, tangles, 60.
Sick-bed, how to change, 524.
Sick, care of, 521-526.
Sick, keep quiet, 522.
Sickness, from wrong habits, 526.
Sick-room, flowers in, 526.
Sick-room, temperature of, 526.
Sick-rooms, to disinfect, 532.
Silk, black, to clean, 169.
Silk goods, to clean, 153.
Silk, light, to clean, 169.
Silk, pongee, to wash, 153.
Silk, to sponge, 170.
Sink, 45.
Sink, in kitchen, 127.
Sink, to clean, 132.
Silver-fish, 208.
Silverware, care of, 130.
Silverware, how to care for, 108.
Simmering, 272.
Sitz bath, 506.
Skin, eruptions on, 388.
Skin, to cleanse, 388.
Sleep, conditions helpful to, 371.
Sleep, early to bed, 371.
Sleep, for repairs, 370.
Sleep, importance of, 369.
Sleeping, baby poisoned while, 443.
Sleeping with head covered, 443.
Sleeping-rooms, 109-112.
Sleeping-rooms, how to ventilate, 42.
Sleeping-rooms, close, 337.
Slop holes, 59.
Slop hopper, 51.
Smoking cigarettes, 322.
Smoking tobacco, 320.
Smoke on walls, 218.
Snake bites, 545.
Soap for the hair, 391.
Soap for the skin, 388.
Soap, medicated, 395.
Soap, soft, to make, 158.
Social purity, 419-430.
Society, moral condition of, 420.
Soda, 241.
Soda water for cleaning, 131.
Solution bath, 553.
Soot in chimney, 126.
Soot spot, 96.
Soot stains, to remove, 163.
Soothing syrup, 442.
Soothing syrup, nature of, 308.
Sore throat, causes of, 551.
Sore throat, local treatment for, 551.
Soups, 254.
Sponge bath, 502.
Sponge bath in bed, 503.

Sponge, to clean, 217.
Sponging black goods, 170.
Spots, soot, 96.
Spots, to remove from coats, 171.
Sprains, 543.
Spreads, how to hang, 146.
Springs, how to protect, 68.
Springs, neglected, 67.
Sprinkling the clothes, 153.
Stains, blood, 163.
Stains, chocolate and cocoa, 163.
Stains, fruit, to remove, 162.
Stains, ink, to remove, 164.
Stains, iodine, to remove, 164.
Stains, matches on walls, 218.
Stains, mud, to remove, 164.
Stains on white goods, 165.
Stains on mahogany, 188.
Stains, removing from wash goods, 161-166.
Stains, soot, 163.
Stains, to remove from marble, 187.
Stairs, easy, 34.
Starch, flour, how to make, 156.
Starch, laundry, how to make, 156.
Starching clothes, 146.
Steaming, 272.
Sterilizing fruit-jars, 190.
Stewing, 272.
Sticks, how to make, 242.
Stimulants, danger of, 303.
Stimulants and narcotics, 303-326.
Stimulants, what they are, 304.
Stirring, 275.
Stoppage in pipes, 138.
Stories, improper, 428.
Stove pipe, 126.
Stove polish, 126.
Stove, care of, 125.
Stove, for kitchen, 120.
Stove, gas or gasoline, 120.
Strong drink, incentive to, 300.
Student, the brilliant, 478.
Student, the dull, 477.
Styes, 554.
Sudsing the clothes, 145.
Sulphur, a disinfectant, 529.
Sun bath, 510.
Sunshine, a disinfectant, 382, 528.
Sunshine, provide for, 42.
Sunshine, value of, 381, 382.
Surroundings, healthful, 57.
Sweeping, 94.
Sweeping and dusting, 93-98.
Sweeping, using wet paper, 95.
Sweeping with damp broom, 95.
Swimming, good exercise, 349.
Swine's flesh, 254.
Swine, inspection of, 255.
Sympathy, too much, 493.

T

Table linen, 107.
Table linen, stains on, 162.
Table linen, to iron, 154.
Table-pad, 107.
Talebearing, 475.
Tanks, water, 72.
Tan, to remove, 385.
Tardiness, 474.
Tar, how to remove, 165.
Tar soap, 395.
Tasks, moderate, 466.
Tea, a stimulant, 304.
Teeth, cleaning the, 412.
Teeth, decayed, 414.
Teeth, exercise your, 413.
Teeth, paste for, 413.
Teeth, the, 412.
Temperance, 303-326.
Temperance pledge, 317.
Temperature of sick-room, 526.
Thoughts, evil, 422.
Throat, sore, 551.
Tidiness, index to character, 383.
Tie, to clean, 217.

Tight clothing, 399.
Time, the opportune, 434.
Tinware, care of, 129.
Toasts, how to make, 244.
Tobacco, 317-326.
Tobacco, effects of, 325.
Tobacco items, 323.
Tobacco smoking, 320.
Toilet, 46.
Toilet, outside, 57.
Toilet, location and care of, 116.
Toilet, making the, 383.
Toothache, 414.
Tooth-powder, 413.
Towels for bath, 115.
Towels for dishes, 123.
Training, physical, of girls, 445.
Training, tardy, 438.
Trap, water, 49, 50.
Treatments at home, 521.
Treatment of minor diseases, 547-561.
Treatments, caution, 547.
Treatments, emergency, 535.
Trees, shade, 60.
Troubles, keep them outside, 365.
Trousers, to press, 168.
Truancy, 475.
Truthfulness, teaching of, 472.
Tubs, to care for, 159.
Tyrotoxicon germs, 252.

U

Upholstering, sanitary, 80.
Underwear, for boys, 454.
Usefulness, the A B C of, 461.

V

Vacations, no, 434.
Vapor baths, 505.
Vegetables, 247.
Vegetables, creamed, 253.
Vegetables, time for cooking, 278.
Vegetables, to cook, 277.
Vegetarian, how to become one, 265.
Vegetarian notes, 267-270.
Vegetarians, ancient, 260.
Vegetarians, strength of, 260.
Vegetarians, why, 259.
Vegetarianism, 259-270.
Vegetarianism, important, 264.
Vegetarianism, not a fad, 259.
Veils, lace, to clean, 151.
Velvet, to clean, 170.
Vent, sewer, 50.
Ventilate, how to, 336.
Ventilation, 333-342.
Ventilation, daily, 335.
Ventilation, damp rooms, 338.
Ventilation, importance of, 335.
Ventilation, in bedrooms, 109, 337.
Ventilation, of cellar, 136.
Ventilation, of hair, 390.
Ventilation, of offices, 340.
Ventilation, of sleeping-rooms, 42.
Ventilators to cesspool, 53.
Veranda, back, 46.
Verandas, not to shut out sun, 38.
Vigilance, 491.
Vines, about dwelling, 61.
Vines, well trained, 62.
Voice, care of, 411.
Voice, exercise of, 410.
Voice, the, 409.
Vomiting, 546.

W

Walls, calcimined, to clean, 184.
Walls, to remove stains from, 218.
Walls, to clean, 183.
Wall-paper, objections to, 39.
Wash-house, 141.
Wash-bowl, how to clean, 115.
Washing, appliances for, 142.
Washing, calicoes that fade, 152.
Washing day, 144.

Washing dishes, 121.
Washing fluid, 157.
Washing, hanging to dry, 145.
Washing, preparations for, 143.
Washing, silk, china, 155.
Water, by mechanical power, 73.
Water, danger from impure, 66.
Water, distilling and boiling, 74.
Water, how contaminated, 66, 67.
Water, in cisterns, 72.
Water, pure, 65.
Water, rain, 71.
Water, roof conductors for, 73
Water supply, 65-74.
Water, tanks for, 72.
Water, to cleanse, 158.
Water, value of, 65.
Weeds, around the house, 60.
Well, impurities of, 51.
Well, location of, 68.
Well, surroundings of, 31.
Wells, casing for, 69.
Wells, driven, 69.
Wells, impure from seepage, 66.
Wells, uncovered, 67.
Wet girdle, 508.
White fur, to clean, 172.
Whitewash, for basements, 36.
Whole wheat bread, 240.
Willow furniture, to clean, 188.
Window-seats, 44.
Windows, French, 37.
Windows, how to adjust, 218.
Windows, how to build, 37.
Windows, to clean, 181.
Windows, to remove paint from, 182.
Wine, unfermented, 195.
Woodshed, cleaning the, 176.
Woolen blankets, to wash, 149.
Woolen clothes, men's, 167.
Woolen goods, dry-cleaning, 150.
Woolen goods, to prevent shrinking of, 146.
Wool goods, how to clean, 169.
Work, play, 463.
Words, bad, 474.
Worry, best remedy for, 364.
Worry, sister to nervousness, 366.
Worship, all take part, 488.
Worship, an illustration, 490.
Worship, family, object-lesson, 486.
Worship, on Sabbath, 489.
Wounds, from rusty nails, 542.
Wounds, to disinfect, 533.
Wringer, to clean, 159.
Wrinkles, 386.

Y

Yeast, how to make, 238.
Young, care of the, 433.

Z

Zinc, to clean, 129.
Zwieback, how to make, 243.

Index to Poetry

A Child's Prayer 490
A Golden Treasure 547
A "Naughty Boy's" Soliloquy 471
A Prescription 343
A Prayer for Purity 430
A Recipe for a Day 380
A Temperance Pledge 317
An Acrostic 196
An Old-fashioned Woman 102
Arrived 437
Boil the Ice 330
Breakfast Best of All 287
Bright Water 65
Care 33
Care of the Dining-room 107
Come In 333
Country Homes 29
Danger 303
Farewell to Worry 363
Get a Transfer 374
God of the Open Air 332
God Sees Everywhere 103
God's Sweetest Gift 436
Health and Beauty 408
He Worried About It 367
Home 15
Home 160
Home Love 564
How Does It Seem to You? 373
How to Be Sick 561
Keepers at Home 98
Little Drops of Water 326
Live with the Children 432
Love's Menu 259

Menu for To-day 296
Mercy 467
No Neutral Ground 419
No Time to Lose 64
Not Worth While 85
Only Beginning 496
Open the Door 381
Open the Shutters 382
Pure and True 452
Quite Too Sweeping 19
Room 30
Sleep 369
Stylish Deformity 408
The Cigarette 321
The Cramming Process 477
The Home-work Fad 460
The Hotel Bar 310
The Joys of Home 27
The Life-giving Cup 330
The Microbe's Lament 407
The Old Decanter 316
The Old Oaken Bucket 70
The Robin's Lecture 341
The Song of the Rye 313
The Song of the Skirt 406
The Voice of Exercise 362
The World Is Wide 364
The Worry that Kills 24
To Bed with a Kiss 444
Two Boxes 484
Who Builds the Home 134
Work 224
Woman 298

Directory

ANSWERS TO INQUIRIES

The principles of healthful living taught in this book are represented in a thoroughly scientific and successful way by a large number of sanitariums and popular books and journals. We give below the names and addresses of some of the best known of these sanitariums for the convenience and information of the public. The managers will be pleased to answer all inquiries concerning health in the home, and the treatment of disease.

SANITARIUMS

Eastern States

Adirondack Sanitarium, Lake George, N. Y.
Black River Valley Sanitarium, Watertown, N. Y.
Buffalo Sanitarium, 922 Niagara St., Buffalo, N. Y.
Lowville Sanitarium, Lowville, N. Y.
Middletown Sanitarium, Middletown, N. Y.
New England Sanitarium, Melrose, Mass.
Pennsylvania Sanitarium, 1929 Girard Ave., Philadelphia, Pa.
Springfield Sanitarium, Springfield, Mass.
Washington Sanitarium, 1 & 2 Iowa Circle, Washington, D. C.

Central States

Berrien Springs Sanitarium, Berrien Springs, Mich.
Hinsdale Sanitarium, Hinsdale, Ill.
Iowa Sanitarium, Des Moines, Ia.
Kansas Sanitarium, Wichita, Kan.
Madison Sanitarium, Madison, Wis.
Montrose Sanitarium, Montrose, Minn.
Nebraska Sanitarium, College View, Neb.
Newark Sanitarium, 159 West Main St., Newark, Ohio.
Otter Lake Sanitarium, Otter Lake, Mich.
Peoria Sanitarium, 203 Third Ave., Peoria, Ill.
Prospect Sanitarium, 5411 Prospect Ave. S. E., Cleveland, Ohio.
Tri-City Sanitarium, 1213 Fifteenth St., Moline, Ill.
Wabash Valley Sanitarium, Lafayette, Ind.
Workingmen's Home Dispensary, 888 Thirty-fifth Place, Chicago, Ill.

Southern States

Atlanta Sanitarium, 243 South Boulevard, Atlanta, Ga.
Birmingham Sanitarium, Birmingham, Ala.
Graysville Sanitarium, Graysville, Tenn.
Little Rock Sanitarium, 1323 Wolfe St., Little Rock, Ark.
Lone Star Sanitarium, Keene, Texas.
Nashville Sanitarium, Nashville, Tenn.

Rocky Mountain States

Arizona Sanitarium, 515 North Central Ave., Phœnix, Ariz.
Boulder Sanitarium, Boulder, Colo.
Colorado Springs Sanitarium, 126 N. Cascade Ave., Colorado Springs, Colo.
Riverside Sanitarium, Montrose, Colo.

Pacific Coast States

Garden City Sanitarium, San Jose, Cal.
Glendale Sanitarium, Glendale, Cal.
Loma Linda Sanitarium, Loma Linda, Cal.
Northwestern Sanitarium, Port Townsend, Wash.
Oakland Sanitarium, 1051 Market St., Oakland, Cal.
Ocean View Sanitarium, 120 High St., Santa Cruz, Cal.
Paradise Valley Sanitarium, National City, Cal.
Tacoma Sanitarium, Tacoma, Wash.
Portland Sanitarium, Mt. Tabor Station, Portland, Ore.
St. Helena Sanitarium, Sanitarium, Napa Co., Cal.
Walla Walla Sanitarium, College Place, Wash.

Canada

Alberta Sanitarium, Edmonton, Alberta, Can.
Knowlton Sanitarium, Knowlton, Quebec.

Europe

Caterham Sanitarium, Caterham, Surrey, England.
Christiania Health Home, Thor Olsens Gade 1, Christiania, Norway.
Constantinople Treatment Rooms, 99 rue Mussillim, Gnedik Pacha, Stamboul, Turkey.
Friedensau Sanitarium, Friedensau, Post Grabow, Bez, Madeburg, Germany.
Frydenstrand Sanitorium, Frederikshavn, Denmark.
Lake Geneva Sanitarium, Gland, Ct. Vaud, Switzerland.
Leicester Sanitarium, 82 Regent Road, Leicester, England.
Rostrevor Hills Hydro, Rostrevor, County Down, Ireland.
Skodsburg Sanitarium. St. Kongensgade 36, Copenhagen, Denmark.

Asia

Calcutta Sanitarium, 50 Park St., Calcutta, India.
Kobe Sanitarium, 42 Yammoto-dori, Nichome, Kobe, Japan.

Africa

Cape Sanitarium, Plumstead, Cape, South Africa.
Kimberley Baths, 7 Cheapside, Kimberley, South Africa.

Australasia

Avondale Health Retreat, Cooranbong, N. S. W., Australia.
Christchurch Sanitarium, Papanui, Christchurch, New Zealand.
Hydropathic Institute, Victoria Sq., Adelaide, S. Australia.
Sydney Sanitarium, Wahroonga, N. S. W., Australia.

Samoa

Samoa Sanitarium, Apia, Samoa.

HEALTH JOURNALS

Life and Health.—Continuing the *Pacific Health Journal*, established 1885. A plain, practical, monthly health journal, devoted to teaching the fundamental principles governing life and health, and revealing these principles and teaching their practical application in the home, in the sick-room, in the kitchen, and in the prevention and cure of disease in general; a valuable manual of health, edited by competent, conscientious physicians, containing contributions from some of the best physicians connected with health institutions, attractive in appearance, practical in contents, and popular with the people. Subscription price, 50 cents per year. Address *Life and Health*, Takoma Park, Washington, D. C.

FOREIGN HEALTH JOURNALS

The following health journals are published monthly and are advocates of the same rational health principles, and cover the same general scope as *Life and Health*:—

Good Health, 451 Holloway Rd., London, N., England. Subscription price, 50 cents per year.

Australasian Good Health, Cooranbong, N. S. W., Australia. Subscription price, 75 cents per year.

Gute Gesundheit (German), Grindelberg 15a, Hamburg, Germany. Subscription price, 50 cents per year.

Sundhedsbladet (Danish-Norwegian), Akersgaden 74, Christiania, Norway. Subscription price, 80 cents per year.

Le Vulgarisateur et Messager de L'Hygiene (French), 29 rue de la Synagogue, Geneva, Switzerland. Subscription price, 50 cents per year.

HEALTH BOOKS

Home and Health.—This volume which you hold in your hand will speak its own praise. Additional copies may be secured from any of our representatives whose addresses follow these book notices. Styles of binding, and prices, post-paid, are as follows:—

Strong buckram cloth, marbled edges	$2.50
Full law sheep (Library)	3.50
Full leather	4.50

The Practical Guide to Health.—A popular treatise on anatomy, physiology, and hygiene with a scientific description of diseases, their causes and treatment. A companion volume to "Home and Health," designed for the home and for the instruction of nurses. A reliable family physician profusely illustrated with drawings made especially for the book. By Frederick M. Rossiter, B. S., M. D., a successful practicing physician. This medical work is prepared with an honest purpose of being just what its title implies—a practical guide to health. It gives a plain, comprehensive construction of the human system, with illustrations showing the anatomy of the various parts of the human body and their relation to each other, together with a minute description of the nature and cause of diseases, and hygienic prescriptions for their cure

without the use of harmful drugs. It covers practically all the diseases common to the human race, and deals with them in a way that the information given can be applied in all homes. It will be equal to a nurse and a physician in every home. It contains about 600 pages, substantially bound. Styles of binding, and prices, post-paid, are as follows:—

Cloth, marbled edges, ...$2.50
Full law sheep, marbled edges 3.50
Full leather, marbled edges 4.50

The Ministry of Healing.—This latest book from the pen of Mrs. E. G. White is pronounced one of the best and most practical of her many interesting books, so well known to the general public. The principles of life and health laid down by the author in this volume are based upon the ministry of Christ for suffering humanity as He "went about doing good." The lessons which He taught as He healed the sick, cast out devils, and preached the Gospel to all classes who thronged His pathway, are beautifully applied to our daily needs.

This book has a twofold purpose. First, it brings within the reach of every intelligent father and mother, every man and woman, lay and professional, a vast fund of information on life and its laws, on health and its requisites, on disease and its remedies. Second, it is dedicated by the author to the "blessed service of sick and suffering humanity." From its sale the author receives no royalty, the publisher no profit. All the revenue from the sale of this book above the net cost of printing, is dedicated to the building up of medical missionary work and institutions for the relief of the sick and suffering. The book contains 544 pages, and over 200 illustrations, and is attractively bound in cloth, stamped in colors. Price, post-paid, $1.50.

Health: How to Find It When It's Lost; How to Keep It When It's Found.—The author considers the details of such practical, every-day questions as good foods, food combinations, influence of stimulants, advantages of vegetarianism, how to avoid consumption, care of the teeth, office of the skin, value and proper use of the bath, home remedies, etc. To illustrate and make all these points perfectly plain, more than a dozen carefully prepared tables are introduced. These tables alone are worth more than the price of the entire volume. It contains 222 pages, and is so thoroughly indexed as to enable one to refer instantly to any passage. Well bound in cloth. Price, post-paid, $1.00

A Friend in the Kitchen.—What to cook and how to cook it. A common-sense, health cook-book, adapted to the needs of all classes. It is vegetarian throughout, and contains much matter not found in an ordinary cook-book, such as substitutes for meat, how to can fruit, how to make unfermented bread and wine, and how to become a vegetarian. It gives rules for dyspeptics, the pulse in health, weights and measures for the kitchen, etc., etc. It contains 400 choice recipes, every one of which has been thoroughly tested. The ingredients of each recipe are indicated by measure and not by weight. The names of the recipes are printed in plain, bold type. This book is not an advertising medium, but

has been prepared in the interests of health, and with a view to being a real help in the kitchen. It will be found to be thoroughly practical, hygienic, and common-sense in every way. It is just the book every housekeeper should have. Nearly 150,000 copies of this excellent cook-book have already been sold, and the sale is just fairly beginning. Many excellent testimonials to its merits have been written. People everywhere are greatly pleased with the book, and are more than satisfied with their investment.

Cloth, limp covers$0.25
Oil Cloth 50

The Vegetarian Cook-book.—While in nearly every kitchen there are one or more "cook-books" on hand for reference, we have no apologies to make for the appearance of this new Vegetarian Cook-book.

The need of good, wholesome advice as to what people should eat and drink is emphatically shown by the alarming increase in disease on every hand.

Mr. Fulton, the author of this volume on vegetarian cookery, is a person of wide experience in vegetarian restaurant work and is at present manager of the popular and well-known Vegetarian Cafe of Los Angeles. He has embodied in his book the results of his long experience and observation in the combination of foods and their healthful and palatable preparation.

The book has 226 pages, including a handy and well-arranged index of all the recipes given.

Bound in cloth, post-paid$0.75

Colds: Their Cause, Prevention, and Cure, by G. H. Heald, M. D.—Every year, as the seasons change, the masses suffer from the prevailing epidemic of colds. The great majority of people do not seem to know the simple principles to be applied in the prevention and cure of this common disease. Dr. Heald, editor of *Life and Health*, has come to the assistance of sufferers from this malady by bringing out a little book, entitled, "Colds: Their Cause, Prevention, and Cure," which contains some common-sense advice to people relative to the prevention and cure of colds. This little book gives not only the cause of colds, but thorough and effectual remedies are prescribed for home treatments. It will supply the needed information pertaining to colds, and their prevention and cure, relieve much suffering, and save many lives; for in the prompt cure of a cold, many resultant fatal diseases are avoided. This beautifully bound little volume costs only 25 cents, post-paid, yet it contains valuable information which every one needs.

The House We Live In, or The Making of the Body.—By Vesta J. Farnsworth. Sets forth in an interesting and instructive manner all the wonders, uses, functions, etc., of the human body in all its various parts. The plan of the book is conversational,—a mother talking with her children. It is a book for home reading and will be of great assistance to mothers in teaching their children how to care for themselves physically, and how to avoid the evil effects of narcotics and stimulants. Contains 218 pages; nearly 150 illustrations.

Cloth, post-paid$1.00

DIRECTORY OF PUBLISHERS AND AGENTS

The publications advertised in these notices may be obtained from any of the following publishers or tract societies. Order from our nearest representative:—

PUBLISHING HOUSES

REVIEW & HERALD PUBLISHING ASSOCIATION,
Takoma Park, Washington, D. C.
Battle Creek, Michigan.
32 Union Square, East, New York, N. Y.
PACIFIC PRESS PUBLISHING COMPANY,
Mountain View, California.
1109 E. 12th Street, Kansas City, Missouri.
285 Salmon Street, Portland, Oregon.
SOUTHERN PUBLISHING ASSOCIATION,
24th Avenue North, Nashville, Tennessee.
217 South Main Street, Fort Worth, Texas.
CANADIAN PUBLISHING ASSN., Box 178, Toronto Junction, Ont.
INTERNATIONAL TRACT SOCIETY, 451 Holloway Rd., London, N., England.
SIGNS OF THE TIMES PUBLISHING ASSN., LTD., Warburton, Victoria, Australia.
INTERNATIONAL TRACT SOCIETY, 56 Roeland St., Cape Town, South Africa.
INTERNATIONAL TRACT SOCIETY, 39-1 Free School St.. Calcutta, India.

LOCAL AGENCIES

ALABAMA TRACT SOCIETY, 1217 Alabama St., Selma, Ala.
ALBERTA TRACT SOCIETY, Ponoka, Alberta, Canada.
ARIZONA TRACT SOCIETY, 214 E. Taylor St., Phœnix, Ariz.
ARKANSAS TRACT SOCIETY, 1203 Wolfe St., Little Rock, Ark.
BRITISH COLUMBIA TRACT SOCIETY, Port Hammond, B. C.
CALIFORNIA TRACT SOCIETY,—Northern—Mountain View, Cal.
CALIFORNIA TRACT SOCIETY,—Southern—257 S. Hill St., Los Angeles, Cal.
CAROLINA TRACT SOCIETY, Hickory, N. C.
CHESAPEAKE TRACT SOCIETY, 1909 Lansdowne St., Baltimore, Md.
COLORADO TRACT SOCIETY, 1112 Kalamath St., Denver, Colo.
GEORGIA TRACT SOCIETY, 243 S. Boulevard, Atlanta, Ga.
ILLINOIS TRACT SOCIETY,—Northern—324 Dearborn St., Chicago, Ill.
ILLINOIS TRACT SOCIETY,—Southern—300 W. Allen St., Springfield, Ill.
INDIANA TRACT SOCIETY, 221 Unity Bldg., Indianapolis, Ind.
IOWA TRACT SOCIETY, 603 E. 12th St., Des Moines, Iowa.
LOUISIANA TRACT SOCIETY, 2234 Magazine St., New Orleans, La.
MAINE TRACT SOCIETY, 1377 Washington Ave., North Deering, Maine.
MANITOBA TRACT SOCIETY, 438 Selkirk Ave., Winnipeg, Man.
MARATIME TRACT SOCIETY, Longard Rd., Halifax, N. S.
MICHIGAN TRACT SOCIETY,—East—Holly, Mich.
MICHIGAN TRACT SOCIETY,—North—224 Michigan St., Petoskey, Mich.
MICHIGAN TRACT SOCIETY,—West—Otsego, Mich.

Minnesota Tract Society, Box 989, Minneapolis, Minn.
Mississippi Tract Society, Box 29, Vicksburg, Miss.
Montana Tract Society, Box 118, Bozeman, Mont.
New England Tract Society,—Central—South Lancaster, Mass.
New England Tract Society,—Southern—152 Seymour St., Hartford, Conn.
New York Tract Society, 317 W. Bloomfield St., Rome, N. Y.
New York Tract Society,—Greater—535 W. 110th St., New York, N. Y.
New York Tract Society,—Western—317 W. Bloomfield St., Rome, N. Y.
New Jersey Tract Society, Swedesboro, N. J.
North Dakota Tract Society, Box 285, Fargo, N. Dak.
Ohio Tract Society, Mt. Vernon, Ohio.
Oklahoma Tract Society, Box 1198, Oklahoma City, Okla.
Pennsylvania Tract Society,—East—4910 Arch St., Philadelphia, Pa.
Pennsylvania Tract Society,—West—Corydon, Pa.
Saskatchewan Tract Society, Regina, Sask., Canada.
South Dakota Tract Society, Box 686, Sioux Falls, S. Dak.
Tennessee River Tract Society, Hazel, Ky.
Texas Tract Society, Keene, Texas.
Upper Columbia Tract Society, College Place, Wash.
Utah Tract Society, 553 E. 3rd South St., Salt Lake City, Utah.
Vermont Tract Society, 190 N. Winooski St., Burlington, Vt.
Virginia Tract Society, New Market, Va.
Western Oregon Tract Society, 285 Salmon St., Portland, Ore.
West Virginia Tract Society, 1200 Seventh St., Parkersburg, W. Va.
Western Washington Tract Society, 309 Second Ave., N., Seattle, Wash.
Wisconsin Tract Society, 203 High St., Oshkosh, Wis.

JUN 28 1907

LIBRARY OF CONGRESS
0 014 183 139 2